

# CurveMaster™

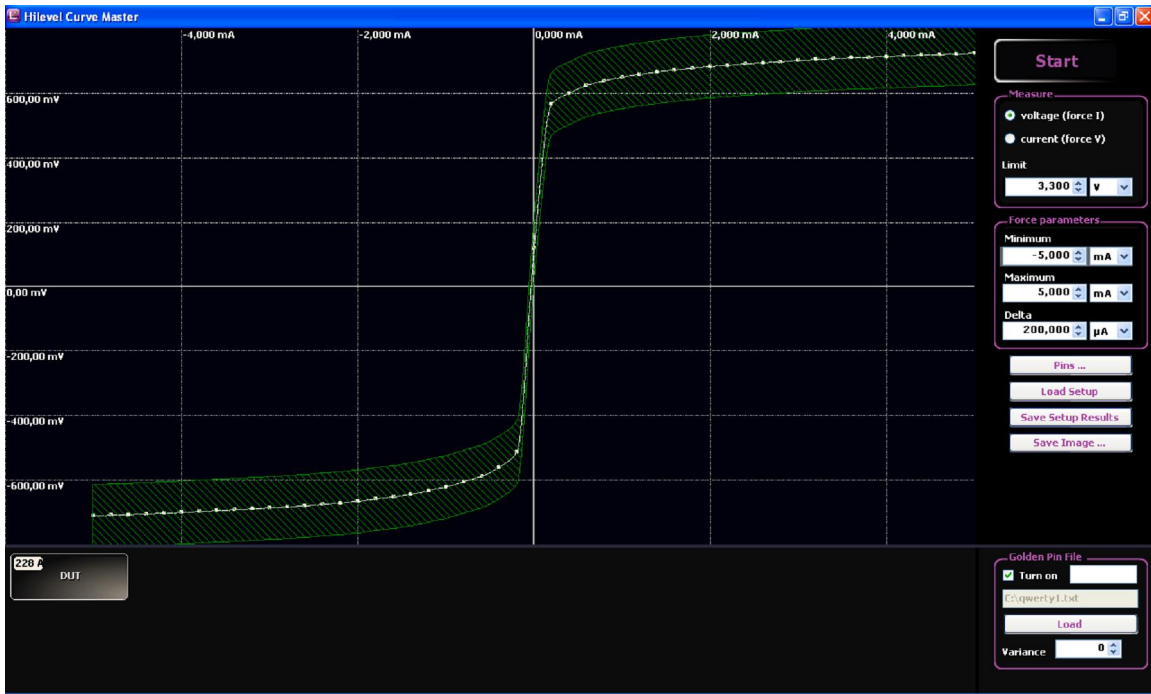
# CurveMaster™



*CurveMaster XL*

**Precision  
Curve  
Tracer**

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



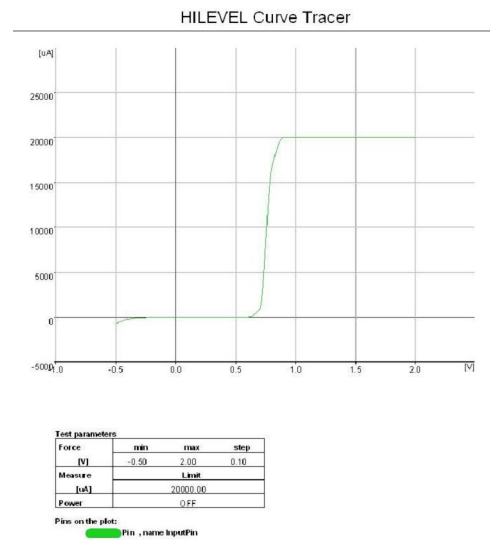
Golden Pin is a definable tolerance that can be used to capture the traces of all the pins on a golden (known good) device. The results are saved and used by the software to verify compliance of more devices. Test results can be saved/viewed as a table or graphic image, or both.

```

;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<sup>TM</sup> supports high-voltage devices up to  $\pm 120$  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<sup>TM</sup> chassis.

## Specifications

### DCHiV PARAMETRIC MEASUREMENTS

One HVSMU switched among 8 outputs on each DCHiV board

Two Force Voltage Ranges:  $\pm 120V$  up to 200mA,  $\pm 30V$  up to 1A, Maximum power 25W

Force Voltage Resolution: 5mV                      Current Limit Resolution: 50 $\mu$ A

Voltage Measurement Resolution: 15 $\mu$ V

Current Measurement Range: 200nA to 2A

Resolution & Accuracy: Range Dependent

| Current Ranges    | Resolution | Accuracy                           |
|-------------------|------------|------------------------------------|
| $\pm 200$ nA      | 20 fA      | $\pm 0.4\%$ of Value + 40 pA       |
| $\pm 2$ $\mu$ A   | 200 fA     | $\pm 0.3\%$ of Value + 200 pA      |
| $\pm 20$ $\mu$ A  | 2 pA       | $\pm 0.2\%$ of Value + 1 nA        |
| $\pm 200$ $\mu$ A | 20 pA      | $\pm 0.1\%$ of Value + 10 nA       |
| $\pm 2$ mA        | 200 pA     | $\pm 0.1\%$ of Value + 100 nA      |
| $\pm 20$ mA       | 2 nA       | $\pm 0.1\%$ of Value + 1 $\mu$ A   |
| $\pm 200$ mA      | 20 nA      | $\pm 0.1\%$ of Value + 10 $\mu$ A  |
| $\pm 2$ A         | 200 nA     | $\pm 0.1\%$ of Value + 100 $\mu$ A |



# 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)



2006/95/EC  
2004/108/EC



**HILEVEL**  
TECHNOLOGY, INC.

***Excellence In Test***  
***Since 1979***

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