

SOFTWARE

LASER PHOTO PLOTTERS

DIRECT IMAGERS

SilverWriter 8850-HD



- Resolutions up to 25,400 ppi
- The new Precision Benchmark
- Unique Optical System
- Improved Registration
- Unrivalled 24/7/52 Reliability
- Compatibility & Upgradeability

Improved Registration

Dynamic beam positioning and Ucamco's patented stress-free film loading system give unrivalled **geometric accuracy** on every plot for perfect image registration.

Unrivalled 24/7/52 Reliability

The SilverWriter 8850-HD uses the same advanced film-handling and operational sequencing as the 8850-P model. It delivers market-leading film throughput at all plot resolutions, even for the most complex PCBs. Up to **3 magazines** can hold a total of **450 sheets** of film of 3 different sizes to give maximum plotting flexibility and cost control.

Compatibility & Upgradeability

The SilverWriter 8850-HD accepts plot instructions directly in Gerber, DPF, ODB++, OI5000 (Expert) or MDA formats. It is a "wheel-in" replacement for conventional plotters. **Choose** from up to 12 resolutions (metric and imperial) & up to 3 film magazines. With a well-proven **upgrade path**, we can set up a SilverWriter 8850-HD to your precise requirements.

The new Precision Benchmark

The SilverWriter 8850-HD has been developed in response to industry demands for a plotter which delivers ultra-sharp **edge-definition** and very precise **line-width control** but without the very high plot resolutions needed for features down to 4µm. Special high-definition optics and plot resolutions from **6,350 ppi – 25,400 ppi** deliver ultra-precise image quality on features down to **8µm**.

Unique Optical System

The SilverWriter 8850-HD uses **sub-micron** pixel placement and tightly focused spot definition to consistently deliver the edge sharpness and line-width tolerances needed for fine-line controlled impedance and microwave technologies - **at any angle** and without the rounding errors found on conventional plots. Back this with precise control of developer chemistry using Ucamco's Intelligent Processor Link for true ultra-precise image definition.

Get more out of your photo plotter investment with GCS software

Ucamco's Geometric Correction System (GCS) automatically modifies photo tools to compensate for the non-linear and linear distortions introduced into a panel during the manufacturing process. By improving layer registration, GCS delivers increased factory yields and extends the plant capabilities with confidence into higher levels of PCB technology.

For more info please contact your local Ucamco distributor or mail us at info@ucamco.com.

MARKETS

- Rigid PCB Mfr ✓
- Flex PCB Mfr ✓
- Flex-Rigid PCB Mfr ✓
- HDI PCB Mfr ✓
- PCB Masslam Mfr ✓
- PCB Equipment Mfr
- PCB Traders
- PCB Designers
- PCB Test Centers
- IC Packaging ✓
- Chemical Milling ✓
- High Resolution Graphic Arts ✓
- Flat Panel Display ✓

PRODUCT FAMILIES

- CAM
- PreCAM and Engineering
- Electrical Test
- Equipment Front Ends
- Format Converters & RIP's
- OEM Software

- Laser Photo Plotters ✓
- Direct Imagers

SilverWriter 8850-HD

Technical Data

Resolutions	Imperial	Metrical
Imperial	6,350 up to 25,000 ppi + 4,000 ppi draft quality	
Metric	4 µm up to 1 µm + 6.25 µm draft quality	
Min. line width	0.3 mil	8 µm
Productivity for an 18" x 24" plot (*)		8850-HD
4,000 ppi (in films / hour)	19.2	
6,350 ppi (in films / hour)	14.4	
12,700 ppi (in films / hour)	8.6	
16,000 ppi (in films / hour)	7.1	
25,400 ppi (in films / hour)	3.5	
Film Requirements	Imperial	Metrical
Film format along the drum	18" – 32" in ½" steps	457-813 mm
Film format around the drum	24-29 in 1" steps"	610-736 mm
Max. image format along the drum	0.2" (5 mm) less than film format	
Max. image format around the drum	0.9" (23 mm) less than film format	
Sheet tolerance	± 0.02"	± 0.5 mm
Accuracy	Imperial	Metrical
Geometric plotter accuracy	< 0.16 mil	< 4 µm
Geometric plotter repeatability	< 0.08 mil	< 2 µm
Global positioning accuracy	0.01 mil	0.25 µm
Geometric accuracy on film	< 0.5 mil	< 12.5 µm
Geometric repeatability on film	< 0.5 mil	< 12.5 µm
Line-width accuracy	< 0.08 mil	< 2 µm
Scaling adjustments	In steps of 0.2 µm – up to ± 5%	
Machine Characteristics	Imperial	Metrical
Online conveyor	Standard included – integrated in the laser plotter	
Film magazines(s)	1 standard – 2 nd and 3 rd optional – all full film size	
Film loading capacity	Up to 3 magazines. 150 sheets of film in each	
Light source	Red HeNe laser, 632.8 nm, 5 mW – 4 µm spot size	
Dimensions (WxD) incl. online conveyor	72.8" x 64.2"	1850 x 1630 mm
Height	54.3"	1380 mm
Weight	3300 lbs	1500 kg
Room temperature during operation	70° F ± 2°	21° C ± 1°
Relative humidity during operation	50% ± 2%, no condensation	
Relative humidity rate of change	Max 6% per hour	
Electrical Power Supply	2 x 230 VAC, 2,000 VA	
Heat dissipation	2,000 W (1,725 kcal/h)	
Compressed air supply	87 – 145 PSI	6 –10 bar
Compressed air quality	Free of oil and water	0.01 mg/m ³
Compressed air volume	88 ft ³ /hour	2500 l/hour

(*) Assuming nominal plotting using factory settings

SOFTWARE

AutoCAM
 FaultStation 4
 FixGenius
 FlashRip
 Format Converters
 Geometric Correction System
 Integr8tor
 Mult Job Panelizer
 OEM Software
 SmartAOI
 SmartPlate
 SmartTest
 Ucam CAD Review
 Ucam CAM++
 Ucam Chemical Milling
 Ucam ET+
 Ucam SmartView
 Ucam uFlex
 UcamX

For more information on any of our products or services please contact us:

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 www.ucamco.com



High resolution linear scale



Linear motor



Granite & Air bearings

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