

SOFTWARE

LASER PHOTO PLOTTERS

DIRECT IMAGERS

Condor Nano AF-50

Top Notch Very High-resolution Large Format Laser Photo Plotter



- New AutoFocus optics
- Resolutions up to 50,800 ppi
- Compatibility and choices
- Improved registration
- Utmost handling capabilities
- Unrivalled 24/7/52 reliability

Improved registration

The Condor series use the patented technology of frequency variation for the "photographic" scaling of inner layers. Together with their new high resolution rotary encoder and new contactless temperature insensitive high resolution linear scale this eliminates micro banding resulting from adding/dropping a pixel and ensures highest geometric accuracy.

Utmost handling capabilities

The film loading/unloading system is fully automated and can be on-line connected to the film processor. The film handling mechanism is simple, reliable and very accurate providing stress-free film loading

Unrivalled 24/7/52 reliability

The Condor series is engineered for round the clock, long-term reliability. The ultra-stable granite bed, maintenance-free linear motor, air-bearings and the direct-drive drum deliver unparalleled long-term uptime - your guarantee of on-time deliveries, low whole life costs and an optimum return on your investment.

Very high resolution

With a maximum resolution of 50,800 ppi, the Condor Nano AF-50 delivers unprecedented line quality and stability. The new AutoFocus optics holds line-width accuracy below 1 μm over the whole film surface. Two unique imaging functions, syntectic modulation and sub-micron pixel-placement, eliminate the rounding errors found on conventional plots.

Compatibility and choices

The Condor series accepts plot instructions directly in Ucam(X)'s DPF, ODB++, Gerber or MDA format and even images Tiff G4 format, making it an extremely versatile laser photo plotter. With variable plotting resolutions it delivers the optimum setting for every image down to 6-7 μm features. The Condor Nano AF-50 handles from 0.65 to 3.5 films per hour.

Get more out of your photo plotter investment with FlashRip software

- FlashRip provides optimized ripping and plotting of line images in resolutions up to 50800 ppi.
- FlashRip features automatic counter-scaling of all designated features on the plotter without the need to go back to the CAM department.
- FlashRip automatically inserts plot stamps (e.g. plot date) into the plotted image.
- FlashRip supports Geometric Correction System (GCS).
GCS allows the user to compensate on the phototool for the linear and non-linear distortions generated on the PCB during various production steps.
The result is a much improved layer registration, lower scrap and higher yields.
- FlashRip is scalable for multiple processors to convert several jobs simultaneously (optional).

Depending on plotter model and job complexity FlashRip increases throughput with up to 100% and more. 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

Condor Nano AF-50

Technical Data

| Resolutions | | |
|---------------------------------------|------------------------------------|------------------------|
| Imperial | 8,000 up to 50,800ppi | |
| Metric | 3,18 µm up to 0.5 µm | |
| Min. line width | down to 0.24-0.28 mil / 6-7 µm | |
| Productivity for a 95" x 62" plot (*) | | |
| 8,000 ppi (in films / hour) | 3.5 | |
| 10,160 ppi (in films / hour) | 2.9 | |
| 16,000 ppi (in films / hour) | 1.93 | |
| 25,400 ppi (in films / hour) | 1.26 | |
| 50,800 ppi (in films / hour) | 0.65 | |
| Film Requirements | | |
| | Imperial | Metrical |
| Film format along the drum | 96.5" | 2450 mm |
| Film format around the drum | 63.5" | 1612 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 | ± 0.03" | ± 0.8 mm |
| Accuracy | | |
| | Imperial | Metrical |
| Geometric plotter accuracy | < 0.24 mil | < 6 µm |
| Geometric plotter repeatability | < 0.08 mil | < 2 µm |
| Global positioning accuracy | 0.01 mil | 0.25 µm |
| Geometric accuracy on film (**) | < 2 mil | < 50 µm |
| Line-width accuracy down to (***) | < 0.04 mil | < 1 µm |
| Scaling adjustments in steps of | 0.005 mil | 0.127 µm |
| Scaling adjustment range | ± 5% | |
| Machine Characteristics | | |
| | Imperial | Metrical |
| Loading capacity | 25 sheets of film | |
| Light source | Red HeNe laser, 632.8 nm, 5 mW | |
| Dimensions (W x D) | 148" x 64.2" | 3760 x 1630mm |
| Height | 72.0" | 1830 mm |
| Weight | 6600 lbs | 3000 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, 3,000 VA | |
| Heat dissipation | 1,800 W (1,550 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 | 106 ft ³ /hour | 3000 l/hour |

(*) Assuming nominal plotting

(**) Assuming stable environmental conditions and using GCS if required

(***) Assuming stable film processor conditions at 50,800 ppi

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:

By e-mail: info@ucamco.com

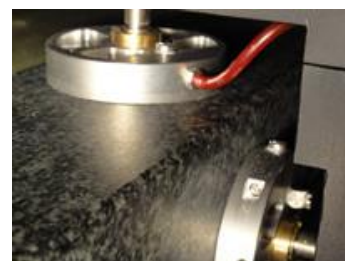
On the Web: www.ucamco.com



High resolution linear scale



Linear motor



Granite & Air bearings

Ucamco NV
 Bijenstraat 19, 9051 Gent, Belgium
 Tel: +32 9 216 99 00

E-mail: info@ucamco.com - Web: www.ucamco.com