

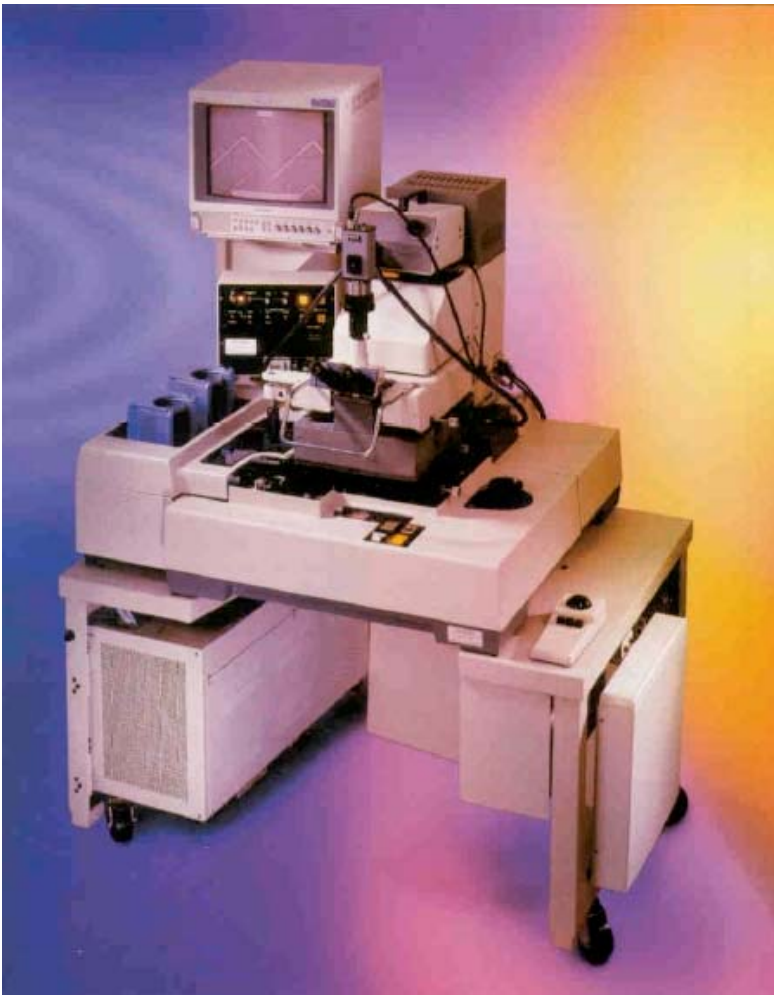


NEUTRONIX / QUINTEL

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PHOTOGRAPHY SPECIALIST

Specializing in the remanufacturing custom
Engineering of the PLA 501/600 series mask aligners



PLA 501/600 features

Contact/proximity Alignment 60-100 WPH

Wafer Sizes: 2" to 6" Semi Spec,
Pieces, Squares

Wafer Feed: Manual and/or
Cassette to Cassette
Auto feeder

Alignment: Manual / Automatic

UV Power: 250,350,500 Watts,
1 and 2 Kilo Watts

UV Spectrum: Deep UV, Near Deep UV,
Near UV

Resolution: Less than .5um in
Hard Contact

Infrared Backside Alignment

Dual Channel Light Integration or C.L

Fiber optic Illumination

High Resolution Video

Neutronix-Quintel combines the expertise of Component manufacturing and complete Systems knowledge in providing you with With the highest quality re manufactured equipment available.

Custom engineered systems are our specialty

Service Available:

- Remanufactured Aligners Custom Engineered Retrofits and Conversions
- Wafer Size Conversion Kits
- Full and Extended Warranties
- Field Service/PM contracts Installation and training
- Board repairs

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Specifications

Standard Specifications for PLA-501 Mask Aligners

(common to PLA-501FA and 501F)

| | |
|-----------------------------|---|
| Photomask size | 3",4",5" or 6" |
| Wafer size | Ø2", Ø3", Ø4" or Ø5" |
| Illuminator | 250W mercury lamp |
| Uniformity | +/- 3% / Ø100mm |
| Exposure time setting | Light Integrator (switch setting from 0.1 to 59.9) user defined mj/cm ² does per unit. |
| Printing Time | 2 seconds for neag resist(OMR-83) 5 seconds for posi-resist (AZ-1350) |
| U.V. Power Supply | 250W standard. 350,500,1000 and 2000W option available |
| Alignment scope | |
| Objective lens | 10x |
| Eyes piece | 10x,15x |
| Mag Multiplier | Adjustable with 1.0x, 1.25x and 1.5x (optional) |
| Field of Observation | Split Image or adaptable for mono. |
| Scanning range | XY scanning by left hand X and Y directions +/- 10mm each |
| Alignment method | |
| Alignment Mode | PLA-501FA; three modes of auto, semiauto and manual possible PLA-501F: manual |
| XY adjustment | By means of the wafer XY alignment grip Coarse: 4.1, Fine: 100:1 Maximum travel of Ø10mm(501F) |
| θ adjustment | By means of wafer θ control switches, changeable between coarse and fine, travel of +/-5° with self-centering mechanism |
| Photomask θ Adjustment | The photomask is also rotatable +/- 5° by knob operation |
| Printing method | Proximity and contact modes selectable |
| Alignment gap | 0 um to 98 um |
| Proximity gap | 0um to 48um |
| Contact printing | Vacuum contact method Contact pressure changeable from 5cmHg to user supplier vacuum pressure |
| Auto Feeder | Possible to change between Auto and Manual mode |
| Carrier | GCA or Teflon carrier with pitch of 3/16",25 wafer capacity |
| Drive method | Belt and air bearing drive |
| Pre-alignment Accuracy | Ø0.1mm (3" wafer, 60mm span) Ø0.1mm (4" wafer, 80mm span) |
| Cycling time (index) | Approx. 30 sec. (with alignment time 10 sec, and exposure time 1 sec) |
| Dimensions | |
| Body | 940mm(W)x 800mm (D)x 724mm(H) (37.0" x 31.5" x 28.5") |
| Body on special table | 1100mm(W)x 820mm(D)x1344mm (H) (43.3" x 32.3" x 52.9") |
| Control box | 300mm (W) x 710mm(D)x 478mm(H) (11.8" x 28.0" x 19.2") |

Standard Specifications for PLA-600 Mask Aligners

(common to PLA-600FA and 600F)

| | |
|-----------------------------|---|
| Photomask size | 3",4",5" or 6" |
| Wafer size | Ø2", Ø3", Ø4" or Ø5" |
| Illuminator | 250W mercury lamp |
| Uniformity | +/- 3% / Ø100mm |
| Exposure time setting | Light Integrator (switch setting from 0.1 to 59.9) user defined mj/cm ² does per unit |
| Printing Time | 2 seconds for neag-resist(OMR-83) 5 seconds for posi-resist (AZ-1470) |
| U.V. Power Supply | 250W standard. 350,500,1000 and 2000W option available |
| Alignment scope | |
| Objective lens | 10x (5x, 20x option) |
| Eyes piece | 10x,15x (20x option) |
| Mag Multiplier | Adjustable with 1.0x, 1.25x and 1.5x (optional) |
| Field of Observation | Split Image or adaptable for mono. |
| Scanning range | XY scanning by left hand X and Y directions +/- 10mm each |
| Alignment method | |
| Alignment Mode | PLA-600FA; three modes of auto, semiauto and manual possible PLA-600F: manual |
| XY adjustment | By means of the wafer XY alignment grip Coarse: 4.1, Fine: 100:1 Maximum travel of Ø10mm(600F) |
| θ adjustment | By means of wafer θ control switches, changeable between coarse and fine, travel of +/-5° with self-centering mechanism |
| Photomask θ adjustment | The photomask is also rotatable +/- 5° by knob operation |
| Printing method | Proximity and contact modes selectable |
| Alignment gap | 0 um to 98 um |
| Proximity gap | 0um to 48um |
| Contact printing | Vacuum contact method Contact pressure changeable from 10cmHg to user supplier vacuum pressure |
| Auto Feeder | Possible to change between Auto and Manual mode |
| Carrier | GCA or Flouroware carrier with pitch of 3/16",25 wafer capacity |
| Drive method | Belt and air bearing drive |
| Pre-alignment accuracy | within Ø100mm Ø0.1mm (4" wafer, 80mm span) |
| Cycling time (index) | Approx. 30 sec. (with alignment time 10 sec, and exposure time 1 sec) |
| Dimensions | |
| Body | 1100mm(W)x 820mm (D)x 855mm(H) (42.3" x 32.3" x 33.7") |
| Body on special table | 1100mm(W)x 820mm(D)x1485mm (H) (43.3" x 32.3" x 58.5") |
| Control box | 320mm (W) x 700mm(D)x 490mm(H) (12.6" x 27.6" x 19.3") |

Weight

| | |
|----------------------------|-----------------|
| PLA-501F on special table | 210kg (462lbs) |
| PLA-501FA on special table | 225kg (496lbs) |
| Control box | 30kg (66.1 lbs) |

Utility

| | |
|------------------------------|--|
| Power Consumption | main body: 350VA or more Power supply box: 800VA or more |
| High pressure air | 3.5kg/cm ² (49.8 p.s.i) or more. 3/8" tube fittings |
| Low pressure air (clean air) | 2.5kg/cm ² (35.6 p.s.i) or more. 3/8" tube fittings |
| N ² gas | 1kg/cm ² (14.2 p.s.i) or more .3/8" tube fittings |
| Vacuum | 45cm-76cm Hg (17.7"-29.9"Hg). 3/8" tube fittings |

Weight

| | |
|----------------------------|-----------------|
| PLA-600F on special table | 235kg (518lbs) |
| PLA-600FA on special table | 255kg (551 lbs) |
| Control box | 30kg (66.1 lbs) |

Utility

| | |
|------------------------------|--|
| Power Consumption | main body: 350VA or more Power supply box: 800VA or more |
| High pressure air | 3.5kg/cm ² (49.8 p.s.i) or more. 3/8" tube fittings |
| Low pressure air (clean air) | 2.5kg/cm ² (35.6 p.s.i) or more. 3/8" tube fittings |
| N ² gas | 3kg/cm ² (42.7 p.s.i) or more .3/8" tube fittings |
| Vacuum | 45cm-76cm Hg (17.7"-29.9"Hg). 3/8" tube fittings |

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