

March 2010

MY100-Series P&P Specification

MY100LX™



MYDATA®

MY100-SERIES P&P SPECIFICATION – MY100LX

PLACEMENT SPEED AND ACCURACY

PLACEMENT SPEED AND ACCURACY – MY100LX 10/14	
Rated Speed ⁽¹⁾	15 000 CPH
IPC 9850 Chip Net Throughput ^(2,3)	13 500 CPH
IPC 9850 Chip Tact Time ⁽³⁾	0.260 s
IPC 9850 Chip Repeatability 3σ (X, Y, Theta) ^(3,6)	57 μ m, 1.8°
IPC 9850 Chip Accuracy @ Cpk = 1.33 (X, Y, Theta) ^(5,7)	95 μ m, 2.6°
IPC 9850 Fine Pitch Net Throughput ^(2,4)	3 200 CPH
IPC 9850 Fine Pitch Tact Time ⁽⁴⁾	0.958 s
IPC 9850 Fine Pitch Repeatability 3σ (X, Y, Theta) ⁽⁴⁾	21 μ m, 0.05°
IPC 9850 Fine Pitch Accuracy @ Cpk = 1.33 (X, Y, Theta) ^(4,5)	35 μ m, 0.09°

The above specification achieved with a machine configuration including high precision mounthead (Midas), high speed mounthead (HYDRA Z8L), line scan vision system (LVS) and inline conveyor T3. The IPC 9850 net throughput and accuracy numbers are obtained simultaneously, with the same machine settings. The rated speed value is obtained under conditions optimized for speed.

- 1) Depending on component and application.
- 2) According to IPC 9850. Net Throughput = (no of parts x 3600) / (board build time + board transfer time).
- 3) According to IPC 9850 0402C verification panel.
- 4) According to IPC 9850 QFP64/QFP100 verification panel.
- 5) According to IPC 9850 Cpk 1.33 = 4σ + offset.
- 6) chip repeatability with high precision head 36 μ m, 1.5°; high speed mounthead and HYDRA camera 69 μ m, 3.0°
- 7) chip accuracy with high precision head, 63 μ m, 2.2°; high speed mounthead and HYDRA camera 115 μ m, 4.2°
- 8) Fine pitch net throughput 2 250 CPH and tact time 1.423s with SVS/DVS.

SYSTEM FEATURES

SYSTEM FEATURES MY100LX
On-the-fly mount order optimization
Vision autoteach with snap-to-grid
Automatic illumination settings
Intelligent feeder concept – Agilis
Automatic feeder and component recognition
On-the-fly feeder loading
Dynamic feeder positions
Automatic board stretch compensation
Automatic conveyor width adjustment
Intelligent surface impact control
Tool collision avoidance
Multi-user, multi-tasking system software
Open software interfaces for factory integration
SQL database engine

COMPONENT RANGE

HIGH PRECISION MOUNTHEAD – MIDAS	
Component Range	Chip (from 01005) ⁽¹⁾ , SOIC, PLCC, TSOP, QFP, BGA, flip chip, odd-shape, surface-mount connectors, through-hole components, CSP, CCGA, DPAK, Alcap, Tantalum.
Component Specification	Min: 0.4 x 0.2 mm (0.016" x 0.008") (01005) Max: 56 x 56 x 15 mm (2.20" x 2.20" x 0.59") Max: component weight: 140 g ⁽²⁾

- 1) Requires dual vision system (DVS) or line scan vision system (LVS). Standard vision system (SVS) chip from 0402.
- 2) Depending on mounthead, mount tool, package, and production altitude.

HIGH SPEED MOUNTHEAD – HYDRA Z8L (OPTIONAL)	
Component Range	Chip (from 0201) ⁽¹⁾ , SO8, SO14, SOT23, MELF.
Component Specification	Min: 0.6 x 0.3 mm (0.02 x 0.01") (0201) Max: 8.70 x 8.70 x 5.60 mm (0.34" x 0.34" x 0.22")

- 1) Requires line scan vision system (LVS). HYDRA camera option capable of chip from 0402.

ELECTRICAL VERIFIER (OPTIONAL)	
Component Range	Resistor, Capacitor, Unipolar Capacitor, Diode (forward voltage, reverse current), Zener diode (voltage drop), Transistor (current gain)
Verification Time	On-the-fly

FEEDER CAPACITY

FEEDER CAPACITY 8 MM TAPE		
	T3	T4
MY100LX-10	112	96
MY100LX-14	176	160

BOARD HANDLING

INLINE CONVEYOR		
	T3	T4
Maximum Board Size	443 x 508 mm (17.4" x 20")	575 x 508 mm (22.6" x 20")
Maximum Board Size with ML adaptor ⁽¹⁾	419 x 443 mm (16.5" x 17.4")	554 x 443 mm (21.8" x 17.4")
Minimum Board Size ⁽²⁾	70 x 50 mm (2.7" x 2")	70 x 50 mm (2.7" x 2")
Board Thickness Range	0.4 - 6.0 mm (0.016" - 0.24")	0.4 - 6.0 mm (0.016" - 0.24")
Board Edge Clearance Top and Bottom	3.2 mm (0.13")	3.2 mm (0.13")
Top Side Clearance (max)	15 mm (0.59")	15 mm (0.59")
Bottom Side Clearance (max)	32 mm (1.25")	32 mm (1.25")
Maximum Board Weight	5 kg (11 lbs)	8 kg (17 lbs)
Board Transfer Height	Conforms to SMEMA standard for board transfer height. Height adjustable from 880 to 975 mm (34.6" to 38.4").	
Operation Mode	Inline, manual, inline odd-board, left-to-right / right-to-left	

1) Optional. Suitable for irregular sized and odd shaped boards.

2) Recommended board train specification: 90 x 50 mm (3.5" x 2") board size, 1.6 mm (0.06") thickness.

VISION CAPABILITY

STANDARD VISION SYSTEM, DUAL VISION SYSTEM (OPTIONAL)				
COMPONENT TYPE	CAMERA	MAX ACTIVE FIELD OF VIEW	MIN PITCH	MIN LEAD WIDTH
Leaded Components	SVC ⁽¹⁾	56 x 52 mm (2.20" x 2.04")	0.40 mm (16 mil)	0.20 mm (8 mil)
	HRC ⁽²⁾	15 x 15 mm (0.59" x 0.59")	0.10 mm (4 mil)	0.05 mm (2 mil)
Bumped Components	SVC ⁽¹⁾	56 x 52 mm (2.20" x 2.04")	0.50 mm (20 mil)	0.25 mm (10 mil)
	HRC ⁽²⁾	15 x 15 mm (0.59" x 0.59")	0.16 mm (6.3 mil)	0.08 mm (3.1 mil)

1) Standard vision camera in standard/dual vision system (SVS/DVS).

2) High resolution camera in dual vision system (DVS).

HYDRA VISION SYSTEM (OPTIONAL)				
COMPONENT TYPE	CAMERA	MAX ACTIVE FIELD OF VIEW	MIN PITCH	MIN LEAD WIDTH
Leaded Components	HC ⁽¹⁾	8.7 x 8.7 mm (0.34" x 0.34")	0.40 mm (16 mil)	0.20 mm (8 mil)

1) HYDRA camera.

LINESCAN VISION SYSTEM (OPTIONAL)				
COMPONENT TYPE	CAMERA	MAX ACTIVE FIELD OF VIEW	MIN PITCH	MIN LEAD WIDTH
Leaded Components	LVC ⁽¹⁾	56 x 56 mm (2.2" x 2.2")	0.20 mm (8 mil)	0.10 mm (4 mil)
	LVC ⁽¹⁾	56 x 56 mm (2.2" x 2.2")	0.30 mm (12 mil)	0.15 mm (6 mil)

1) Line scan vision camera.

SOFTWARE

SOFTWARE MODULES (OPTIONAL)
Shared Databases
Line Mode
PCB ID (2D barcode)
Electrical Measurement Log
Pre-Pick Inspection
Barcode Software

OFFLINE SOFTWARE TOOLS (OPTIONAL)
Data Preparation – MYCam
Machine Programming – MYCenter
Optimization and Scheduling – MYPlan
Inventory Management and Kitting – MYLabel
Traceability – MYTrace
Line Automation – FlowLine

MISCELLANEOUS

INSTALLATION REQUIREMENTS	
Power Requirements	Three phase AC 6.6 kVA (3 x 2.2 kVA)
Power Consumption	1.5 kW (average)
Voltages	3 x 200, 210, 220, 230, 240, 250 +/-10%, Y or Delta
Air Supply	No air required
Noise	65 dBA
Air Temperature	+18 to +35 °C (65 to 95 °F)
Air Humidity	< 95% RH non condensing

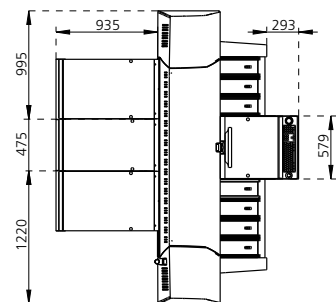
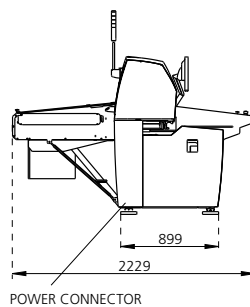
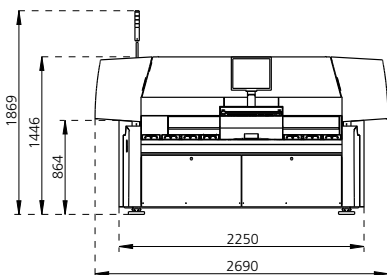
MACHINE WEIGHT ⁽¹⁾	
MY100LX-10	1 400 kg (3 100 lbs)
MY100LX-14	1 700 kg (3 700 lbs)

1) Total machine weight excluding magazines.

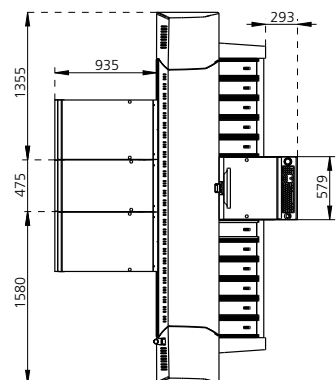
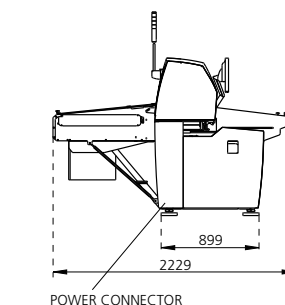
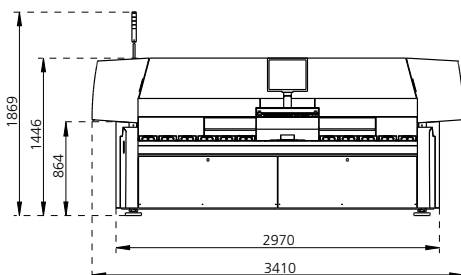
DIMENSIONS

in mm.

MY100LX-10 T3



MY100LX-14 T3



MYDATA[®]
www.mydata.com
info@mydata.com

Micron Mydata AB
PO Box 3141
SE-183 03 Täby
Sweden
Visit: Nytorpsvägen 9, Täby
Tel: +46 8 638 52 00
Fax: +46 8 638 52 90

MYDATA Asia
Tel: +65 6281 7997
Fax: +65 6281 7667

MYDATA Benelux
Tel: +31 402 62 06 67
Fax: +31 402 62 06 68

MYDATA China
Tel: +86 21 6485 5389
Fax: +86 21 6485 7208

MYDATA France
Tel: +33 1 6959 2434
Fax: +33 1 6928 7100

MYDATA Germany
Tel: +49 8102 749090
Fax: +49 8102 749098

MYDATA Japan
Tel: +81 42 354 1334
Fax: +81 42 354 1335

MYDATA UK
Tel: +44 1 202 723 585
Fax: +44 1 202 723 269

MYDATA USA
Tel: +1 978 948 6919
Fax: +1 978 948 6915

Specifications are subject to change without notice.

MYDATA, MYDATA automation and MY, MY100, MY100DX, MY100SX, MY100LX, MY500 and MYSynergy, T3, T4, T5 and T6; HYDRA Speedmount, Midas, ISIC ; Agilis, Agilis Linear Magazine (ALM), Agilis Stick Magazine (ASM), MYDATA Tray Exchanger (TEX), MYDATA Tape Magazine (TM), MYDATA Tray Wagon Magazine (TWM); MYDATA Standard Vision System (SVS), MYDATA Dual Vision System (DVS), MYDATA Linescan Vision System (LVS), MYDATA HYDRA Vision System (HVS); MYDATA Assembly Process Management (APM) including: JPSys, TPSys, MYLabel, MYPlan, MYTrace, MYCam, Flowline and CAD Conversion are registered trademarks or trademarks of MYDATA automation AB. MYDATA is ISO 9001:2008 certified.