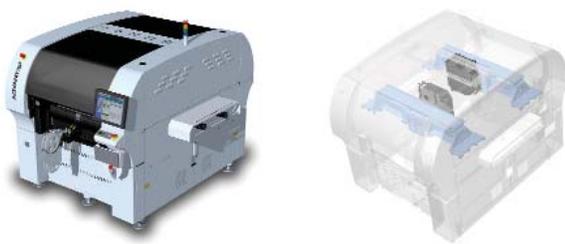


Advantis AC-60 LED



Focused yet flexible LED solution

Advantis AC-60 LED Platform

Universal Instruments' Advantis® AC-60 LED is the premier pick-and-place solution for the growing solid-state lighting market, delivering the optimum combination of speed and flexibility for LED applications. The focused yet flexible capabilities of the AC-60 LED enable cost-effective productivity for both LED and standard surface mount applications, as well as providing investment protection in a dynamic market environment.

High-performance LED solution

- Patented Lightning® placement head technology delivers the industry's fastest tact rate and throughputs up to 65,500 cph
- 30-spindle Lightning architecture maximizes throughput for standard 1.2 meter LED lamps, which are typically grouped in arrays of 30 or 60 placements
- Handles boards up to 1.3 meters long
- Working relationship with leading-edge LED suppliers provides valuable insight into component and packaging trends

Exclusive versatility and investment protection

- The largest component range of any LED placement solution – from LEDs to 01005 passives through 30mm square – to enable efficient productivity for both LED and standard surface mount applications
- Rotary Lightning head design utilizes same head orientation as for standard surface mount applications, whereas alternative LED platform offerings rotate inline heads 90°
- Retains full feeder capacity to run a variety of products, versus alternatives which lose 50% of feeder capacity
- Maintains front and rear user interfaces
- Lightning single pick point minimizes feeder inventory

Flexible solution for LED and SM applications

A high-performance solution for a wide range of LED and surface mount applications – all on the same line without reconfiguration



LED applications support

Portfolio of LED nozzles utilize soft compliant tips when contacting the globe, or pick LEDs without contacting the globe. Specialized long board kits provide support for LED boards up to 1.3 meters.

LED solution for a range of markets

- Industrial lighting
- Residential lighting
- Outdoor lighting
- Automotive
- Flat-panel TV
- Mobile phones
- Traffic signals
- Road signage





Solid foundation

The Advantis AC-60 LED is built on the same solid foundation as the comprehensive Universal Instruments' surface mount platform portfolio. Patented VRM linear motor technology features a 1µm resolution, 2.5G acceleration speeds, and a dual-drive architecture for reduced settle times. VRM technology requires less than one hour of maintenance per year.



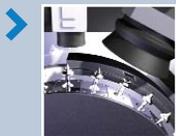
Lightning head technologies

The Lightning placement head bridges the gap between high speed chip and IC placement, delivering the industry's fastest tact rate (55ms), and an unrivaled component range from LEDs to 01005 passives through 30mm square.



Lightning incorporates intelligent spindles featuring:

- Fast and accurate direct drive theta
- Vacuum generated directly at the spindle
- Touchdown sense compensates for varying heights
- Dry spindles / no oil required
- Automatic feeder pick updates
- Retains history of pick performance



Vision system

The Lightning placement head utilizes two on-the-head cameras to image components ranging from LEDs to 01005 passives through 30mm square on-the-fly.

- Narrow field of view to image 01005 - 12mm square
- Configurable wide field of view to image up to 30mm square
- Images lead-less, leaded, bumped, and odd-form components



Common peripherals

The Advantis AC-60 LED retains peripheral compatibility with all Advantis 3 and Genesis Series 2 Platforms. Compatibility with other Universal Instruments surface mount platforms also applies.



Feeding solutions

The AC-60 LED offers a wide variety of feeding solutions - including tape, tray and custom feeders - to support LED and surface mount applications. The AC-60 LED supports 136 8mm inputs.

High Performance Gold Plus Feeders: intelligent, feature-loaded, high-speed, tape feeders

- 60 msec index rate
- 8 - 88mm tape widths, multi-pitch
- Dual-lane / single-lane options
- Continuous splice capability
- Reel detection sensor



Software solutions

The Advantis AC-60 LED features intuitive operator software, a powerful set of NPI software tools to accelerate entry of new products into production, and optional Dimensions® turnkey line management tools that connect Advantis into your overall manufacturing operation.

UPS+ Operating software:

- Touch-screen interface for ease of use
- Graphical user interface for simple navigation
- On-line programming and editing tools

NPI Software Suite (standard on every Advantis 3 Platform):

- Enables ramp to volume and quality with first board
- Dynamic monitoring and compensation tools to assure low scrap, and high utilization and yields
- Embedded calibration tools to maintain highest accuracies and yields
- On-line diagnostics tools and documentation to simplify debug and maintenance
- Feeder Inspect
- Fiducial Inspect
- Pre-Placement Inspect
- Circuit Offset Inspect
- Board Population
- Post-Placement Inspect

AC-60 LED SPECIFICATIONS

Placement Rate (cph (sec per comp))	Max	65,500 (0.055)
	1-Bd IPC Chips (1608)	39,500 (0.089)
Accuracy (µm@1.33 Cpk/1.00 Cpk)	LEDs	±60 / ±45
PCB Dimensions (mm ("))	Max (WxL)	457 x 1300 (18 x 52)
	Min (WxLxH)	50.8 x 50.8 x 0.508 (2 x 2 x 0.02)
	Max Weight (kg (lbs))	1.81 (4.0)
Component Range (mm ("))	Max (WxLxH)	30 x 30 x 6 (1.18 x 1.18 x 0.24)
	Min (WxLxH)	0.18 x 0.38 x 0.10 (0.007 x 0.015 x 0.004)
Machine Dimensions (mm ("))	(LxDxH)	2040 x 2248 x 1930 (80.31 x 88.50 x 75.98)
Feeder Types		tape, tray, custom feeders