



### LASER BARCODE SCANNER

QX-870 comes with intelligent sweeping raster scanner, for reading multiple 1-D and stacked 2-D barcodes, in varying locations, even when small, poorly printed or damaged. Has four M12 connectors for direct connection of power, trigger, I/O, and multiple ports for utmost connectivity and flexibility. For tracking, tracing and controlling barcode applications in almost any manufacturing automation environment. Multiple units can be "chained" together using a singular cable per unit.

Microscan

microscan.com

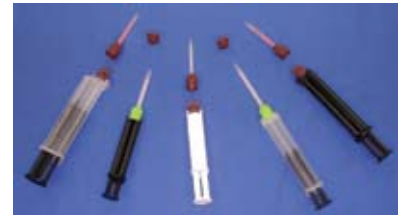


### NO-CLEAN, NO-HALOGEN SOLDER PASTE

Alpha CVP-520 solder paste is a Pb-free, no-clean, zero-halogen paste designed for pin-in-through-hole assembly of temperature-sensitive components. Reportedly reflows at peak temperatures of 155° to 190°C. Is said to provide fine feature printing on 0.30 mm circles at speeds up to 100 mm/sec., and in-circuit pin test yield.

Cookson Electronics

alpha.cooksonelectronics.com



### DOUBLE BARREL SYRINGES

Come in 2.5, 5 and 10 mL capacities; offered in 1:1, 4:1 and 10:1 ratios. Consist of a manual plunger, a dual-cylinder syringe and a static mixer, designed to work together. Are polypropylene. Prevent diffusion of two components. Provide precise mixing and dispensing. Come in black.

ConProTec

conprotec.com

## OTHERS OF NOTE

### FINE PITCH INTERCONNECTS

SS4/ST4 series narrow body, low-profile board-level interconnects have a 4 mm wide socket strip and 5 mm wide terminal strip, with 0.4 mm pitch. Standard mated stack height is low profile (4 mm from board-to-board) with a choice of application-specific heights from 4.5 to 6 mm. Available with up to 40 positions per row in a double row design, and rated at 7 GHz in single-ended and 4.5 GHz in differential pair configurations when mated.

Samtec

samtec.com

### BARCODE-BASED WIP SOFTWARE

Work In Process software is based on barcode technology. Is for tracking who is assigned a job, where it is in the plant, and how long it has been in that location. Work order can be tracked to department, task or employee; multiple jobs may be assigned to the Badge, and timeframes may be set for each task and reported when overdue. Is said to reduce late jobs and identify bottlenecks.

Dynamic Systems Inc.

click2barcode.com

### PB-FREE WATER-SOLUBLE SOLDER PASTE

WS177 is said to meet standards for solder spread and wetting, and meet IPC-7095 Class III resistance to voiding under straight ramp or soak reflow profiles. Is reportedly fully cleanable after two paste reflow cycles, with a wide cleaning process window. Is compatible with SN100C and SN97C alloys with Type 3, 4 and 5 solder meshes. Can be used with OSP, ENIG, immersion silver, and immersion tin finishes.

FCT Assembly

ftassembly.com

### POLYIMIDE REWORK STENCILS

Polyimide stencils for PCB rework are designed to stay in place and can accommodate space/traces down to less than 1 mm. Standard stencil thicknesses are 0.004" and 0.008", with an aspect ratio of 1:1. Are designed to peel away from their adhesive backing and be permanently placed onto the PCB site area to be reworked. Are cut with high-precision lasers. Said to eliminate problems of keeping the stencil in contact with the PCB, releasing the stencil from the board, and cleaning. Have 1:1 aspect ratios and are said to print solder paste consistently. Come in packages of 10.

BEST Inc.

solder.net

### 4-D AOI SOFTWARE

Catch System networks multiple machines into a closed-loop process monitoring and quality control system. Uses an open-source SQL database. Has three additional modules that each manage a particular component and connect to the physical and administrative layout of the factory. CS Repair provides a paperless system of defect classification and repair, working from three process operational variations and including full barcode control with multi-panel barcoding. Enables remote observation. CS Analyzer delivers SPC track and trace and end-of-batch performance analysis.

Marantz Business Electronics

marantz.com/bus/eu

### LOW VISCOSITY FLUID TIPS

Teflon lined tips are for low viscosity fluids and cyanoacrylates (super glue) material. Reportedly resist cyanoacrylate clogging and prevent substrate. Feature a double helix Polypropylene color hub and a rigid Teflon crimped lining that projects approximately 1/8" from the inside of a stainless steel tube. Are compatible with a range of fluids and composed of silicone-free materials. Are rated industrial grade safe up to 100 psi and are available in both bulk quantity and packs of 50 pieces.

Techcon Systems

techconsystems.com

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### 8-MP DESKTOP AOI

S2088-II is equipped with automatic paste print, pre- and post-reflow and THT solder joint inspections. Now includes 8-MP camera, with the same angled inspection and OnDemandHR function as inline systems. Has faster loading and unloading and large PCB fixturing. Has IPC-compliant inspection library. Can be transferred to other systems, including S3088-II, S6056 and X7056. Can inspect PCBs up to 20" x 18".

Viscom  
viscom.com



### SMT BOX CONTACTS

SMT box contacts are for direct PCB mounting. Are capable of being oriented for horizontal or vertical (for bottom post entry) mounting. Will accept 0.025" sq. posts or 0.032" round pins, forming a connection durable for 12 or more mating cycles. The phosphor bronze contacts are RoHS-compliant and finished with a matte tin over copper plating with a current rating of 15A.

E-Mark Inc.  
e-markinc.com



### SOFTWARE-RUN CONTACTOR CLEANER

Automatic Contactor Cleaning, for MT9510 test handler, cleans quickly and without manual interruption of the handling process. Is fully automated and software-controlled, and requires no opening, undocking, or downtime of the handler during operation. Permits user-defined cleaning cycles. Requires no modifications to the handler base unit, and is said to be easy to install into any existing MT9510 or MT9510XP.

Multitest  
multitest.com/MT9510

## OTHERS OF NOTE

### WATER-SOLUBLE PASTE

WS159 is said to consistently print in volumes down to 12 mm circles and meet IPC-7095 Class III resistance to voiding, using straight ramp and soak reflow profiles. Is reportedly fully cleanable. Works with SnPb37 and SnPb36Ag2 alloys with Type 3, 4 and 5 solder meshes. Works with OSP, ENIG, immersion silver, and immersion tin. Results in bright, shiny SnPb solder joints, and solder spread on all common pad finishes.

FCT Assembly  
fctassembly.com

### STATIC DISSIPATIVE VACUUM CUPS

HV-KITESD Handi-Vac Kit uses conductive silicone vacuum cups. Each kit comes with one 1/8" and one 1/4" vacuum cup on bent probes, as well as one 1/8" and one 3/8" vacuum cup on straight probes. Applications include SMT parts, metal parts, plastic parts or any item with a smooth, nonporous surface that the rubber vacuum tweezer tip can seal against. Can be used with any of the company's rubber vacuum cups ranging in size from 3/32" to 3/4" in diameter.

Virtual Industries Inc.  
virtual-ii.com

### BATH CONCENTRATION MONITOR

Bath Analyzer is said to help eliminate unreliable bath control measurements. An alternative to refractive index; is said to be almost as accurate as gas chromatography. Total process time is about 10 min.; cooling the cleaning bath first is not required. Reportedly minimizes overall consumption of cleaning bath by maintaining the concentration at the initially required values.

Zestron America  
zestron.com

### AUTO ID COMBINATION CAMERA

Visionscape Smart Camera, for PCB and component inspection, combines technologies from machine vision and auto ID. Positions over a conveyor or bench, and can verify the accuracy of components and placement, or identify any errors prior to reflow. Has novel software. Has optical character recognition, optical character verification, and full reading of any barcodes or 2-D symbols, including the most difficult direct part marks. Is a compact, portable one-piece unit.

Microscan  
microscan.com

### AUTOMATED STENCIL PRINTER

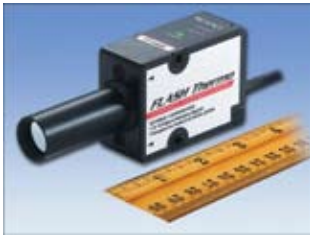
SPR-45VA has SMTrue Vision Assist alignment system; quick-change, double-sided nesting kit, and enhanced axial and theta alignment system. Is said to print down to 0.0012" pitch components. Provides axial stencil to board registration with dual or single camera assist to permit accurate printing of 0201s,  $\mu$ BGAs, CSPs, and 0.0015" pitch QFPs with adjustment for board tolerance variation. Pneumatic control of pressure, speed and angle-of-attack dual squeegee.

APS Novastar  
apsgold.com

### UNIVERSAL TEST MEASUREMENT

EM Eye Meter consists of a base unit and three separate sensors for EMI, radio frequency and ESD detection. Instantly displays information on its color touch-screen and logs data on an SD card. Handheld size. ESD sensor identifies where ESD events occur and verifies ESD control methods are functioning. ESD event counter takes counts above set thresholds and records discharge strength so immediate adjustments can be made. Detects and measures transient signals, minimizing interference with normal operation of sensitive equipment. RF sensor detects receptions of transmitted signals. For use in PCBs, hard disk drives, defense and aerospace, medical equipment and semiconductors.

3M Electronic Solutions Division  
3mstatic.com



**DIGITAL IR SENSORS**

FT Series is for noncontact detection of surface temperature. Has a broad IR spectrum and temperature sensing range from 32 to 2462°F. Measures IR from distances of up to 3000 mm; sensor head can be mounted far from harsh environments. Optional air purge enclosure eliminates dust buildup. Has a high-speed response of 10 ms. FT-H10 sensor is ideal for thin, fast-moving targets, including heat seals, hot melts, heat-treated or hot-formed parts.

Keyence  
keyence.com/ft



**SOLAR CELL METALLIZATION DRYERS**

RDS 2100 and RDS 3000 consist of a combination of either five or seven IR zones and one central convection zone. Guarantee safe transport through the oven, either via mesh belt or with pin chain up to three lanes. Heating and cooling zone conveyor can be separated; reportedly no latent heat is carried into the cooling area. Have belt speeds up to 6 m./min. and throughputs of up to 5700 wph.

Rehm Thermal Systems  
rehm-group.com



**'NO HALOGEN' SOLDER PASTE**

DSP 866 no-clean, Pb-free solder paste reportedly has 0% ppm total halogens and comes in a variety of alloys. Has flux classification of ROL0 per J-STD-004. Reportedly continuously prints for up to 8 hr. Abandon time of at least 1 hr. said possible. Characterized by brick-like prints. Good release seen on 0.0012" to 0.0009" apertures with print speeds in the range of 1" to 6" per sec. Has nonconductive, noncorrosive and highly insulated residues. Nitrogen not required.

Qualitek International  
qualitek.com

**OTHERS OF NOTE**

**DISPOSABLE FLUID PATH VALVE**

Tridak Model 826 features adjustable suck-back control. Prevents material from forming at the dispense tip with low-viscosity fluids. Pinch valve also features disposable fluid path technology. Fluid tubing is replaceable; is available in two sizes and a variety of materials. Reportedly eliminates expensive seal-kit maintenance. Is for all low-to-high viscosity materials. Possesses flow control and an over-stroke adjustment that prevents tubing damage.

Tridak  
tridak.com

**ANTISTATIC-COATED COVER TAPES**

Universal Cover Tape 2688, Static Dissipative, reportedly prevents product damage and loss resulting from static charges. Seals electrical and electronics components into embossed carrier tape materials, including paper. Is said to be compatible with virtually all equipment and carrier tapes. Has pressure-sensitive adhesive to bond to polycarbonate, polystyrene and paper carriers. Reduces risk of component migration, flipping, vibration and chip sticking in feeders. Universal Cover Tape 2680, Non-Conductive, is for products not susceptible to static charge.

3M Electronic Solutions Division  
3M.com/electronics

**BENCHTOP FILLING SYSTEM**

Axis Series automatically fills grease, pastes, etc. into cavities and onto components, reportedly to accurate and repeatable volumes. Is self-contained and includes a dual memory processor with compact flash card. Comes as a benchtop system for low- to mid-volume applications. Containers are processed on pallets (two are included); may unload/load one pallet, while the machine is filling the other. Come with programmable auger valve, peristaltic pump, programmable shot pump, pressure pot, valve, etc. A continuous path pattern may be dispensed in all three axes.

Dispense Works  
dispenseworks.com

**FAST-CURING ENCAPSULANTS**

Multi-Cure 9001-E Series are said to cure in seconds, require no mixing and have consistent viscosity. Have high ionic purity, are solvent- and isocyanate-free. Contain no sharp, abrasive mineral or glass fillers. Reportedly display excellent adhesion to polyimide, PET, flexible PCBs, FR-4 and ceramic boards, and provide protection for glob top and chip-on-board applications. Are for encapsulating ICs in flex circuits.

Dymax Corp.  
dymax.com

**THERMAL PROFILING SOFTWARE**

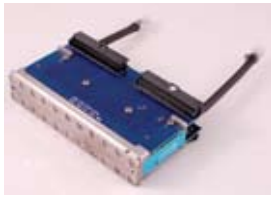
MAP thermal profiling software V2.17c enhances throughput speed, data retrieval and interpretation. Includes a cropping tool; profile data extraction for cooling slopes after peak; batch download of multiple runs stored on MegaM.O.L.E. 20 and V-M.O.L.E.; date-time auto file naming option; mouse-over channel descriptions to highlight specific channels, and one-click direct to Excel data exporting in user-specified units.

ECD  
ecd.com/downloads

**STATIC PRESSURE SOLDERING**

Static pressure soldering technology is for Pb-free soldering large, high-density products. Enables Pb-free (SnAg3.0Cu0.5) soldering for products up to 490 x 510 mm in size and 6 mm in thickness. Ensures a decent soldering fill without damaging the PWB; enables partial soldering for insertion components.

OKI  
oki.com



### 256-NOZZLE INKJET PRINthead

256Jet-S has a 256-nozzle printhead for noncontact printing of a variety of acid and alkaline etchants and conductive metals for direct write, printable solar/photovoltaic applications. Reportedly lasts up to eight times longer than alternative inkjet printheads. For use in direct write, precision dispensing of etchants with PH ranging from 2 to 14. Lasts up to three years; has a lifespan of 90 billion firings. Jets a viscosity range from 6 cps to 30 cps. Is available in 5 pl, 30 pl, 50 pl, or 80 pl drops.

Trident  
trident-itw.com



### AUTOMATIC PCB CENTER SUPPORT

RED-E-SET is an installed automatic board center support for pick-and-place machines. Features include manual or automatic lock, improved quality, and reduced changeover time. Is said to be easy to install and remove in the machine; strips can be added as needed. Supports a range of board widths, as well as support lengths up to 24".

Production Solutions Inc.  
production-solutions.com



### SHOP FLOOR CONTROL SOFTWARE

Dimensions Line Manager is said to maximize line utilization and provides visibility into production. Reportedly reduces downtime up to 75%. Enables management of changeover and part replenishment while production continues on the line. Provides instructions at each machine for feeder destinations during changeover and automatically guarantees correct locations. Offers a number of tools to manage production, including feeder alerts, component traceability, part consumption, cycle counting, and feeder tracking.

Universal Instruments  
uic.com

## OTHERS OF NOTE

### 'QUICK-CURE' CONDUCTIVE FILM

CF3366 has high adhesion strength for electrical, thermal and mechanical assembly. Reportedly delivers adhesion at elevated temperatures, offers high electrical conductivity and provides for uniform and void-free bondlines. Is said to ensure RF ground plane performance even in extreme environmental conditions. Has low curing temperature and a short curing time.

Henkel Corp.  
henkel.com/electronics

### 20-HEAD PLACEMENT MACHINE

YS24 surface mount placement machine has two sets of 10 inline multi-heads located on two beams. With new dual-stage conveyor, is said to place up to 72,000 cph (0.05 sec./chip). Platform has a horizontal width of 1.25 m. Handles PCBs up to 700 x 460 mm. SS Feeder computer-controlled electric powered tape feeder and compact, lightweight feeder carriage are said to improve changeover times.

Yamaha Motor Co.  
yamaha-motor.co.jp

### COMPONENT DRY STORAGE

HM1001 is an upgrade to the DXU-1001 and DXU-1002 McDry cabinets. Maintains a reported 1% RH and removes moisture at a very fast rate through use of zeolite desiccant that reportedly never needs replacing. Features adjustable shelves that can hold up to 220 lbs.; comes with digital RH meter, drying unit with a fan that quickly dehumidifies, and tightly sealing lockable doors. Is compliant with ESD-IEC61340-5-1. Removes moisture at twice the speed of the DXU-1001 and DXU-1002.

Seika Machinery Inc.  
seikausa.com

### BGA EXTERIOR INSPECTION

MX-BGA2 II Lens permits nondestructive observation of BGA ball joints. Has 3-D optical rotary ring, including prism tip with lighting and a cushion mechanism to ensure comfortable observation. Helps specify such problems as overheating, oxidation and air foam formation. Inspects upper and lower ball joints. Is capable of up to 180X magnification. Features spring-loaded lens tip to protect samples, and configurable and flexible lineup of lenses and peripheral devices.

Hirox/Seika Machinery Inc.  
seikausa.com

### NONCONTACT VIDEO MEASUREMENT

Falcon 3-axis is said to be suitable for multi-user shop-floor use and advanced manufacturing inspection. Employs high-resolution indexed zoom optics (up to 100x magnification), with an indexed camera iris control, increasing accuracy and repeatability of Z-axis results. Incorporates controllable quadrant LED illumination and motorized Z-axis control. Measuring stages provide a measurement capacity of up to 150 x 150 x 115 mm (X, Y, Z) and include factory-completed NLEC calibration as standard.

Vision Engineering  
visioneng.us

### INLINE LASER MARKING

Basic Laser BLS 01 marks codes, images and clear text directly into solder resist. Laser and galvo head are mounted above a conveyor on a programmable X/Y gantry. Clamps and secures PCB while laser is moved to preprogrammed XY positions and content is marked. Can be configured as an inline system or with a loader and offloader as a marking island.

Asys  
asys-group.com