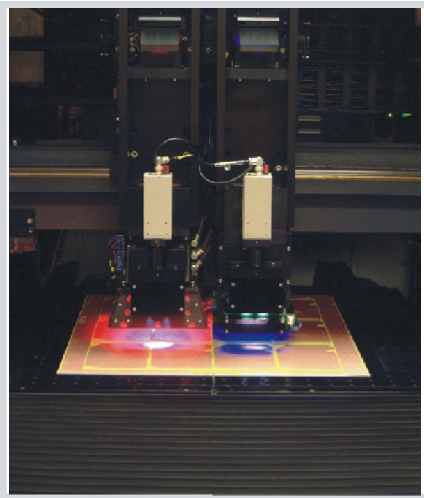


***duotech* is a new AOT system from Lloyd Doyle. It is designed for the pcb producer who wants maximum flexibility from a single machine with the ability to optically test a diverse range of products.**



duotech uses proven technology from the Lloyd Doyle *redline* and *phasor* lines and combines reflective light and fluorescent illumination systems on the same AOT machine a unique feature in the pcb optical test world. This combination gives the user maximum flexibility to optically test all copper clad laminates including low contrast materials such as RTF, DSTF and double treat.

In addition, *duotech* can to perform a discerning optical test at the phototool and dry film photo-resist stages of pcb production. *duotech* is offered with an easy to use graphical user interface which allows changeover of the illumination systems by keyboard-selection within 10 seconds. *duotech* is available with a choice of camera resolutions which allow the system to scan images from the entire range of pcb production from regular mass produced pcbs to fine line prototype work. As with all other AOT systems, *duotech* can communicate with any proprietary front-end cam station for the preparation of optical test reference data in the form of per-layer netlists and/or bitmap files. This efficient reference permits rapid on-line set-up and scanning of the pcbs, finding all types of faults quickly and accurately. Verification and repair of faults can be done either on-line using a CCTV system or off-line using any of the Lloyd Doyle repair stations. Either way, *duotech* offers fast and effective fault detection at all stages of pcb production. *duotech* reflects the continuing development of AOT systems to cope with the changing demands of the pcb manufacturing industry.

A detailed specification appears overleaf.

SPECIFICATION

PANEL SIZE:

24" x 30" (610mm x 760mm)

INSPECTION SIZE:

20" x 25" (500mm x 635mm)

Note: Larger format scan sizes are possible using custom large format machines to a maximum of 39" x 78" (1m x 2m)

THROUGHPUT:

From 600 sq/ft per hour to 200 sq ft per hour (60 m² to 20m² per hour)

RESOLUTION:

Options:

10.0micron systems give 3 mil (75micron) line/space scanning
7.5micron systems give 2 mil (50micron) line/space scanning
5.0micron systems give sub-2 mil (sub-50micron) line/space scanning

FAULTS DETECTED:

All functional and cosmetic faults found using netlist and cosmetic detection algorithms.

FAULT VERIFICATION AND REPAIR:

On-line using CCTV

Off-line using:

Optional penmarker system
SCIMITAR or SABRE repair stations

DIMENSIONS:

Width 1.47metres
Depth 2.09 metres
Height 1.60 metres
Weight 1.1 tonnes

MATERIALS:

Most production materials including:
Bare copper
Treated copper
Artworks
Pb/Sn

PRODUCT TYPES:

Signal images
Power/ground images
Mixed signal/power/ground images
Drilled, SMD and mixed pattern outer layers
Microvia Technology

FACILITIES:

LAN connection for all data communication.
CCTV and graphics images off all faults
Multi-languagedisplay.
Engineering diagnostic tools.
Software upgrades available over internet

OPTIONS:

Large format scanning up to 1metre x 2 metre maximum.
Pen marker system for fault identification.
On-line fault report printing.
High resolution optical systems.
Pinless registration.
Additional cameras to give dual camera systems.
Extended storage HDD.



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