



LASER MARKING SYSTEM MOD. ALS 6100

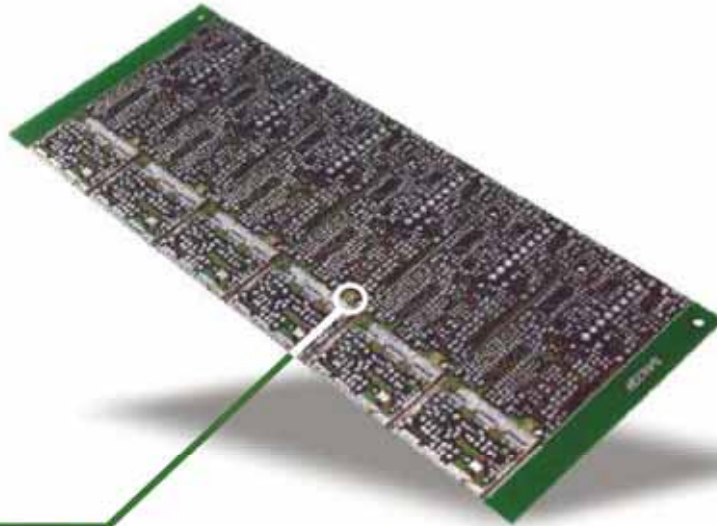


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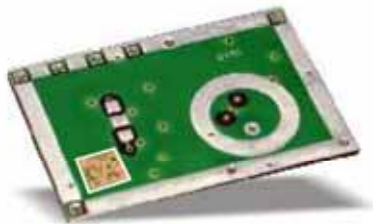


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Example of marking on PCB with solder and copper, with AUREL ALS6100 Nd-YAG laser.
Machine has 160 x 160 mm marking area and moving head to cover areas up to 320 x 320 mm.



□ 2,5 x 2,5 mm



□ 5 x 5 mm



Specifications are subject to change without prior notice.

AUREL ALS 6100 MARKING SYSTEM

SPECIFICATION:

Working Area	: 110 x 110 mm (150 x 150mm optional)
Resolution	: 10 μ m.
Repeatability	: 30 μ m.
Writing speed	: 350 caratteri/sec.
Scanner head	: Scanlab Mod. Hurryscan
Computer	: Pentium 3 450 Mhz 128 RAM, Cd Rom, 15" TFT Flat monitor, tastiera con trackball integrata, Windows 95/98
Software	: SAM Light SCAPS
I/O Interfacing signal	: Start/Stop marking cycle (input). Beginning / End marking cycle (output). Emergency (input). Fault (output). Piece rotation (optional).

Laser generator:

- Aurel Nd-Yag with acousto-optic Q-Switch.
- Beam diameter TEM₀₀ 1,3 mm.
- Wave length 1064 nm.
- Power TEM₀₀ CW 12 W.
- Multimode CW 40 W.
- Repetition rate Single pulse to 10 KHz.
- Alignment either by HeNe Laser or through collimator.
- All mirrors and optical components mounted on rails with micrometric adjustment vertical and horizontal alignment of the Q-Switch by micrometer.

Utility requirements & enviromentals

Electrical power	: 3 / 380 V 20 A 50 Hz.
Operating temp.	: 10 - 40 Celsius.
Humidity	: 85 % max

AUREL AL 40 Nd-Yag LASER with acousto optic Q-Switch

- Wave length : 1064 nm.

- Power : 40 W Multimode CW
12 W TEM₀₀ CW

- Krypton lamp : 3,5 Kw.

- Q-Switch : 50 W - 24 Mhz.

- Repetition rate : Single pulse to 10 Khz.

- He Ne : 2,5 mW, 632 nm, in line with YAG beam to allow perfect laser beam alignment and visualizement.
(Optional)

- All Components mounted on optical bench.

- Changeover of Pumping Krypton Lamp without Optical Re-alignment.

- Cooling system with deionized water, pump, particle and deionizer filters, interlock for protection of laser against high temperature and low flow.



More than 3 50 characters per second possible
 Compact design
 Apertures: 10mm and 14 mm
 Mechanically and electrically compatible with the SCANgine® series and the SCANjet
 Scan mirrors available for various laser wavelengths and power densities
 Digital and analog versions
 Automatic self-calibration optionally available for hurrySCAN® 14



Rapid manufacturing

Stereolithography, Laser carving
Processing on-the-fly

Inspection & Identification

The varioSCAN20, an optical system for fast and precise adaptation of the focal length to different working distances, makes it possible to change the focus diameter by controlled defocusing.

When combined with the varioSCAN 20, XY scan systems can be extended into 3D beam deflection units.

Typical applications:

Laser materials processing
 Marking, Coding, Drilling, Scribing, Trimming, Deep-engraving, Texturing, Structuring, Perforating
3D Solutions
Micro-machining

Precision display systems

Materials sorting
Product individualizing
Medical systems
 Biomedical systems
 Ophthalmology
Science & Research

In comparison with the scan heads of the SCANgine® series, the hurrySCAN® offers highly improved step response times. This is decisive for applications with high demands for speed and accuracy.

The compact housing of the hurrySCAN® is fully compatible with the SCANgine® series and the SCANjet. This enables OEM integrators and system manufacturers to choose the scan head best suited for a given application.

Easy retrofitting of installed systems equipped with SCANgine® and compatible scan heads is also possible. SCANLAB offers mounts for common F-Theta objectives. The standard configuration of the hurrySCAN® includes an F-Theta objective with a focal length of 160mm. Other F-Theta objectives are available on request.

The compact sealed design of the hurrySCAN® ensures stable working conditions, forming the basis for high reliability and defined performance parameters such as repeatability and speed. For enhanced long-term repeatability, automatic self-calibration is optionally available for the hurrySCAN® 14.

Tight production tolerances allow the hurrySCAN® to be interchanged easily. Therefore, upgrades and service interventions can be quickly performed without excessive equipment down time.

SCANLAB also offers the deflection unit minus the housing as a scan module for integration into existing designs.

hurrySCAN® is a registered trademark of SCANLAB AG



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SCAPS SAM 2D Marking application software

SAM2D Standard Components

- Basic
- Optic
- View2D
- Text2D
- Barcodes
- Bitmap
- Std-IO
- Hatcher

- Display of all SCAPS data like HPGL,text, bitmaps etc.
- Assignment of properties like illumination style, name, hatch style, etc.
- Transformation of data with mouse and keyboard input.
- Graphical generation of standard geometry like lines,rectangles, triangles, circles, and polygon lines by mouse.
- Transformation of point items
- Entity list for defining mark order
- Linear and radial text
- Windows True Type fonts
- Serial numbers, Laserfonts
- Font editor for defining customized laser fonts.
- Generation of different 1D and 2D barcodes like 3of9, EAN, EAN-128, Code-128, UPC-A, Data Matrix, etc.
- Reading and writing of HPGL data with pen information
- DFX Import maintaining object hierarchy
- Import of PC-MARK files
- BMP and PCX bitmap import
- Filling of 2D polygon lines
- Beamcompensation of closed polygon lines during hatching.

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D	E	F	G	H	I	J	K	L
0058 X	0059 Y	005A Z	005B [005C \]	005D ^	005E _	005F `	0060 ~
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