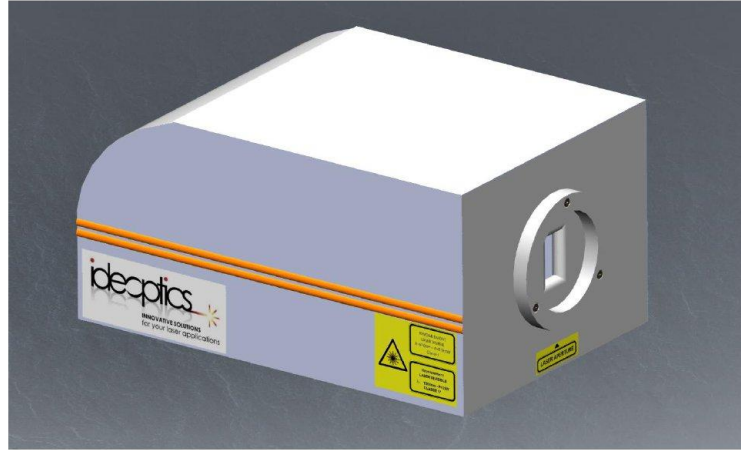


NEW HIGH SPEED
SCAN HEADS



Multi-Dot-Scan™ High speed Scanhead Technology

A true new concept for high speed stop-and-go scanning!



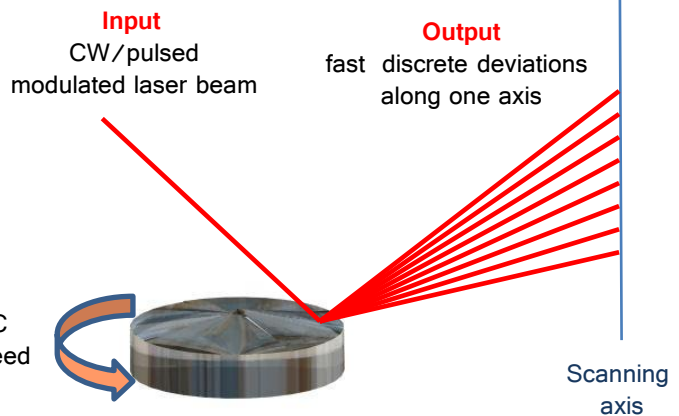
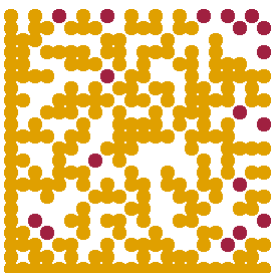
Our scanheads use our Multi-Dot-Scan™ optical technology, which was elected “best photonic innovation” by the professional visitors at the last OPTO exhibition (Paris, October 2011). It has been designed for the laser processing of matrix patterns of dots or holes at very high speed, with precision and high repeatability (zero drift), whatever the size of the scanning area. Furthermore it has a very high laser damage threshold and does not need any cooling devices.

Principles of the Multi-Dot-Scan™ technology



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Our patented scanhead technology has a very unique architecture that uses the combination of “non planar” based reflective optics mounted on Brushless motors that operate in stationary regime with high rotation speed. The optical property of the mirrors in combination with the precision of the encoding of the motor allows this scanning technology to outperform galvo systems in high speed step-and-go scanning processes.

The scanning speed depends only on the rotation speed of the motor, independently of the size of the scanning area.

NEW HIGH SPEED
SCAN HEADS

Multi-Dot-Scan™ High speed Scanhead Technology

Ideoptics technology benefits compared to galvo systems

Unlike the standard galvo scanhead which is commonly used in laser material processing applications, our technology enables the laser processing of a matrix pattern of dots or holes, with the following performances:

- high speed whatever the size of the scanning area
- high precision and high scanning repeatability (zero drift) whatever the scanning speed
- high laser damage laser threshold, no cooling devices (mirrors rotate continuously at high speed)
- ready-to-use embedded software

Our scanning technology works at all laser wavelength and is particularly adapted to high power high frequency laser technologies.

A use of an acousto-optic device can be sought in case of use with low rise time lasers (ex. CO₂ laser sources).

Multi-Dot-Scan™ : more than an optical scanner, also a true embedded control technology

Software and Graphical User Interface are designed according to the application and customer specific needs (marking, engraving or drilling parameters).

The figure hereunder illustrates the use of a Multi-Dot-Scan™ head in a laser marking process.

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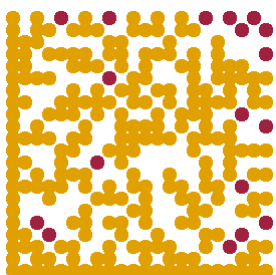
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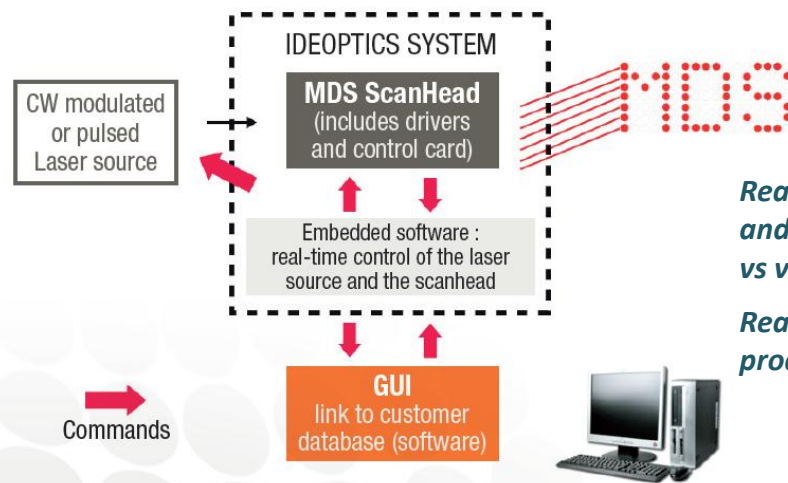
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MDS Scanning Technology overview

(ex. encoding and marking of encoded characters)



*Real time encoding
and real time laser marking
vs various conveyor speeds*

*Real time control of the
product position*

*Real time control
of the traceability
data flow*