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independent control

SCANLAB's RTC® SCANalone Board enables real-time control of scan systems and lasers without requiring a PC. The board's high-performance signal processor and extensive internal memory make this possible. The only item required for operation is an external power supply.

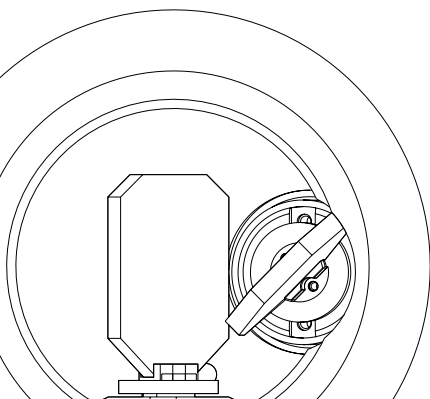
Marking data can be loaded via a removable MMC memory card or by using the built-in USB 1.1 interface. The board's internal memory can accommodate up to one million list commands – a capacity that meets the needs of both today's and tomorrow's complex applications.

External control signals can be used to start or otherwise influence the execution of applications loaded in memory. For this purpose, the board is equipped with an additional 16-bit digital input and 16-bit digital output.

Control commands to the scan system are issued synchronously every 10 μ s as 16-bit digital output signals.

The RTC® SCANalone can also be operated via a PC connected to the board's USB interface. In this mode, the RTC® SCANalone offers the same functionality as an RTC®4 PC interface board.

The RTC® SCANalone software interface and hardware connection capabilities are largely compatible with those of the RTC®4 PC interface board. All options offered for the RTC®4 PC interface board (e.g. 3D or processing-on-the-fly) are also available for the RTC® SCANalone.



Specifications

- Outputs for controlling a scan head and a laser
- Various laser modes selectable (e.g. YAG mode, CO₂ mode, polarity) – see illustration
- USB 1.1 interface to PC
- MMC memory card included
- 16-bit positioning resolution
- 10 μs output period
- Software driver (DLL) for (32-bit) Windows 7 / Vista / XP / 2000
- Two 10-bit analog outputs
- One 8-bit digital output
- One 16-bit digital input and one 16-bit digital output
- Two 10-bit analog inputs
- Battery-powered clock/calendar
- PowerOK/BUSY status LED
- Power requirement +7...+30 V DC (max. 10 W)

Options

- Control of 3-axis scan systems
- Optical data transfer via optical fiber interface
- Processing-on-the-fly functionality for objects in motion
- Dual-head capability for simultaneous control of two scan systems with individual image field correction
- Opto-decoupled laser signals
- Extension board with D-SUB connectors for easy front panel mounting
- 19" rack-mountable version

Laser Control Timing Diagram

