

Technical Documentation

Low Cost Scanning System SBL 255

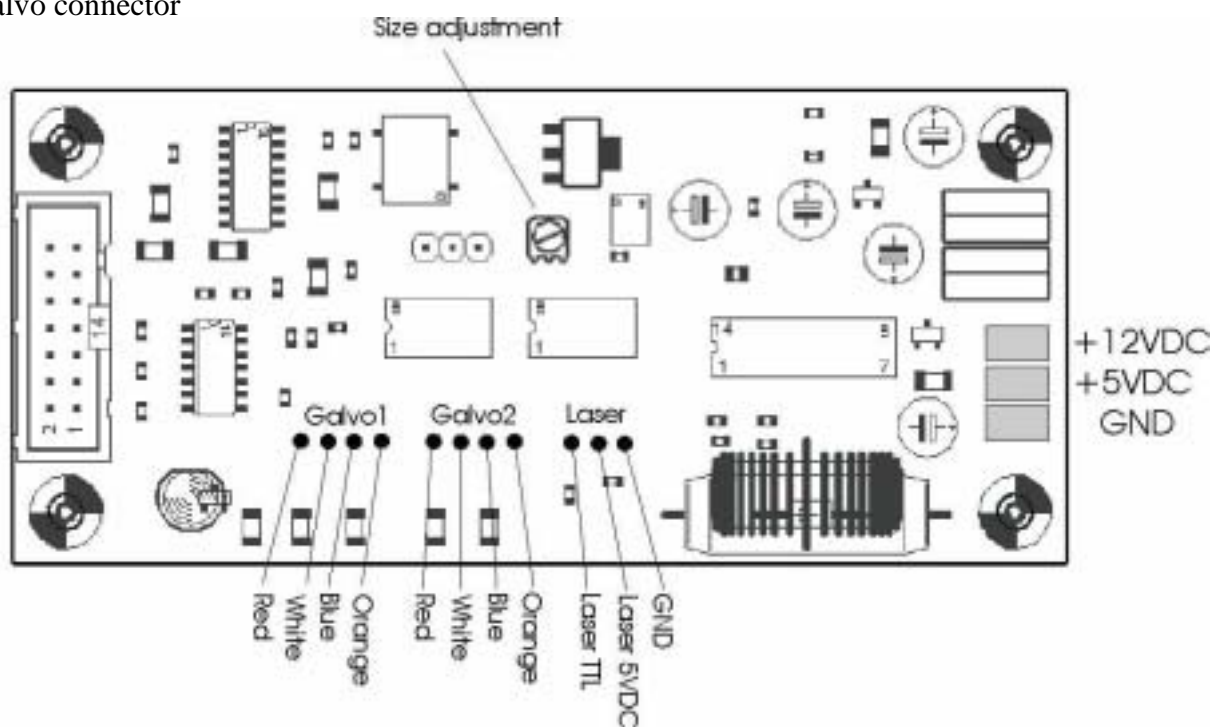
Overview

The SBL 255 consists of the driver electronics sandwich board with 8bit TTL input, two open loop galvos with mounts, mirror mounts and mirrors. The driver board contains a sophisticated electronics circuit, which stores the 255 animations, manages all ports, checks the galvos and holds the program for the CPU. Input is 8bit parallel without any handshaking through polling. The board contains a scanner safety check circuit ACS, which shuts down laser output at time of scanner failure.

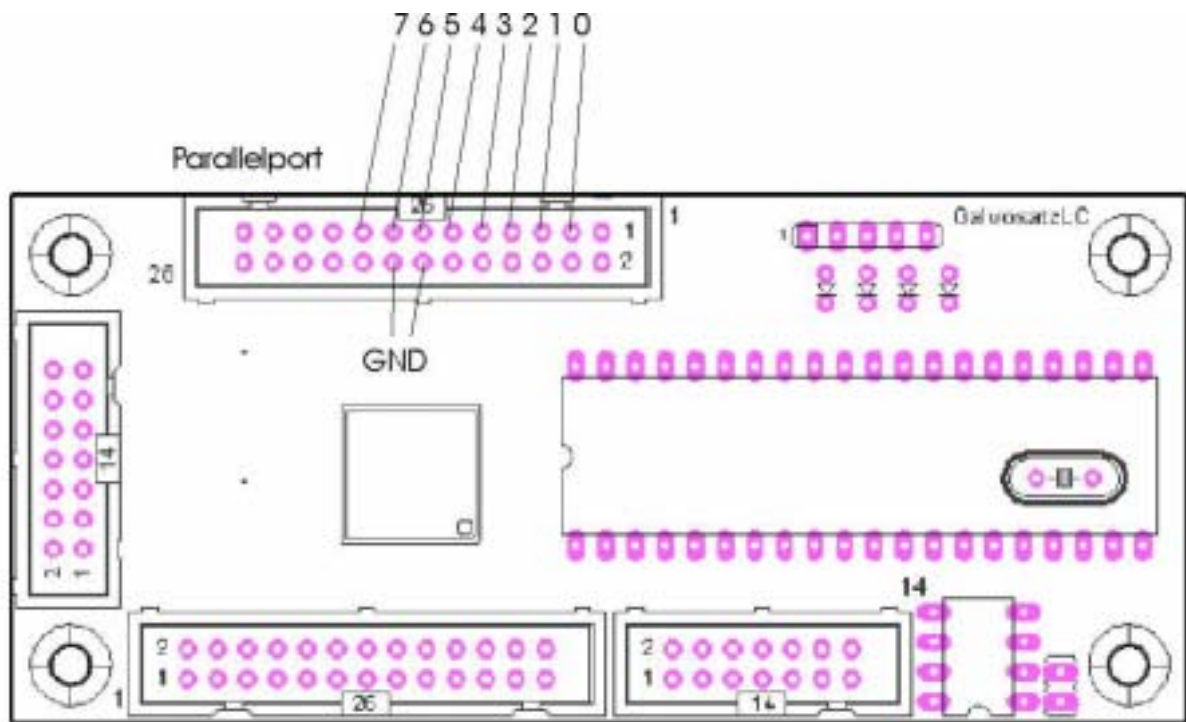
Connectors

The board has different connections for :

- Power input 5/12/GND
- Laser blanking output 5V
- 8bit parallel control input
- Galvo connector



Pinning of the analog board. Alle needed connections are marked and explained.
This is the digital board with the input pins.



All other connectors are not user specific and should not be connected.

Explanation:

- Connect galvo cables as described.
- TTL laser output drives blanking inputs
- Laser 5VDC can drive small DPSS lasers up to 500mA. Then, the transistor must be mounted on an isolated heat sink.

How to select the animations

By assigning TTL-signals to the input pins, the 255 animations are selected. As soon as a new signal is applied, new animation starts immediately. The selection is coded in binary format 8bits. Therefore, all pins to zero means no output.

Power consumption < 500mA for each voltage.

WARNING! Static electricity on in and output pins will destroy circuits. All power voltages must be stabilized.