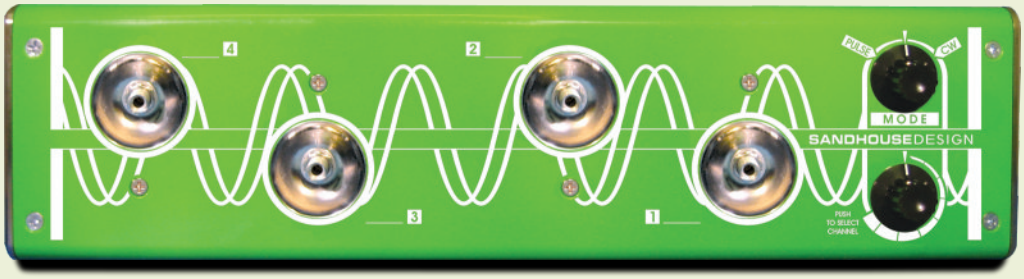
MCLS
(Multi-Channel Light Source)

General Microtechnology & Photonics
Systems for Industry, Research, Telecom & Medicine

Front

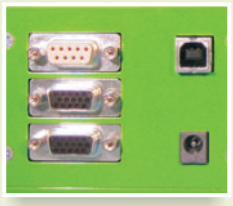


SMA Fiber Output

Mode Switch
Intensity Adjustment
and Fiber Coupling

Multi channel LED light source with integrated time domain controller.

Back



Interface Connection
and Power Source

The Sandhouse Design multi-channel LED Light sources are designed to power 4 of Sandhouse Design's LED modules. The constant current drivers can each drive up to 2amps continuously or 4 amps at 50% duty cycle. The user changeable LED modules are automatically recognized and the drive current is adjusted accordingly. The light source can work alone or be controlled through its' USB interface. The USB interface has 12bits of intensity control of each LED, along with access to the powerful timing functions of the time domain controller.

The multi channel light source has a powerful integrated timing controller. With this timing controller, synchronization between the different channels and external events can be adjusted with a resolution of up to 10ns. The duty cycle and pulse width of the LEDs can be programmed with great precision up to pulse widths of several seconds. Each LED channel has its own timer. The off time and on time of each channel are independently controlled.

The different triggering modes can be configured with Sandhouse Design's included “Timing Genie” Software. Once the timing setups are configured, they can be stored into the instrument for operation without a PC. This instrument greatly simplifies the setup required to do time based measurements. These include applications such as gated fluorescence, Multi Excitation Emission Spectroscopy (M.E.E.S) and PWM (pulse width modulation) color mixing of LEDs.

The MCLS can support stand alone, master, or slave operation. In master mode it provides a hardware trigger output in relation to turning on an LED channel. When operating as a “slave” unit it can turn on the LED at some time interval after receiving a trigger. The different channels in the light source can then use these triggers to fire the LEDs either sequentially or synchronously. Sequential mode fires one LED for each trigger cycle. The synchronous mode resets all of the LED counters at once. It is also possible to cascade multiple light sources to have multiple systems sharing the same trigger.

See back for technical info ↪

For Orders or Inquiries

www.gmp.ch

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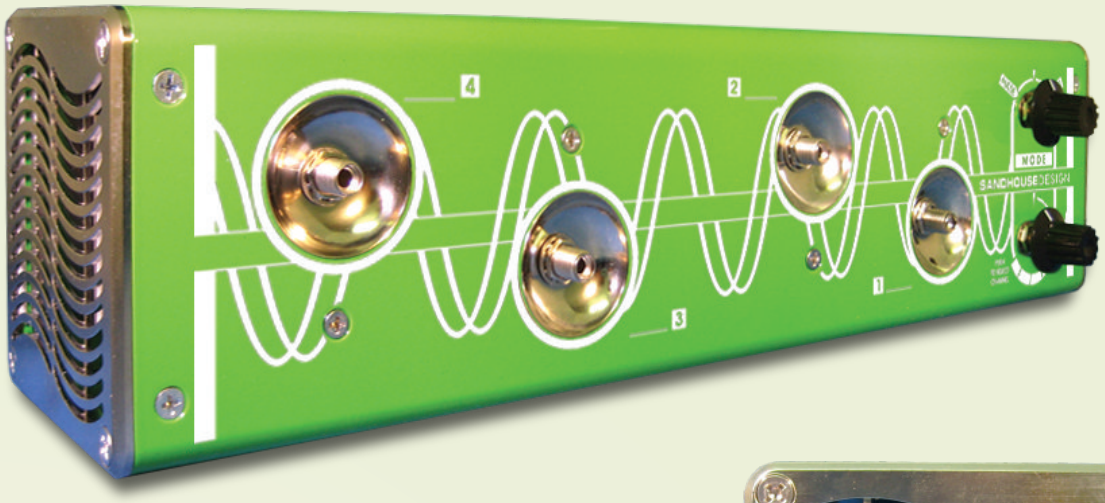
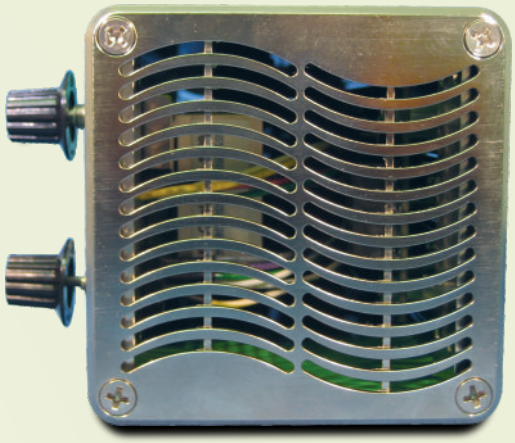
System Specifications

Dimensions	3" x 3" x 11.75"
Weight	1.5lbs
Available software	Timing Genie for windows, and Java compatible SDK
PC interface	USB 2.0
Trigger modes supported	External, Internal and free running
Timing resolution	10ns
Current drive capability per channel	2.0Amps, continuous, 4amps at 50% duty cycle.
LED modes supported	Sequential, Synchronized and Free Running
Analog Control Resolution	12 bit



Multi channel LED light source with integrated time domain controller.



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