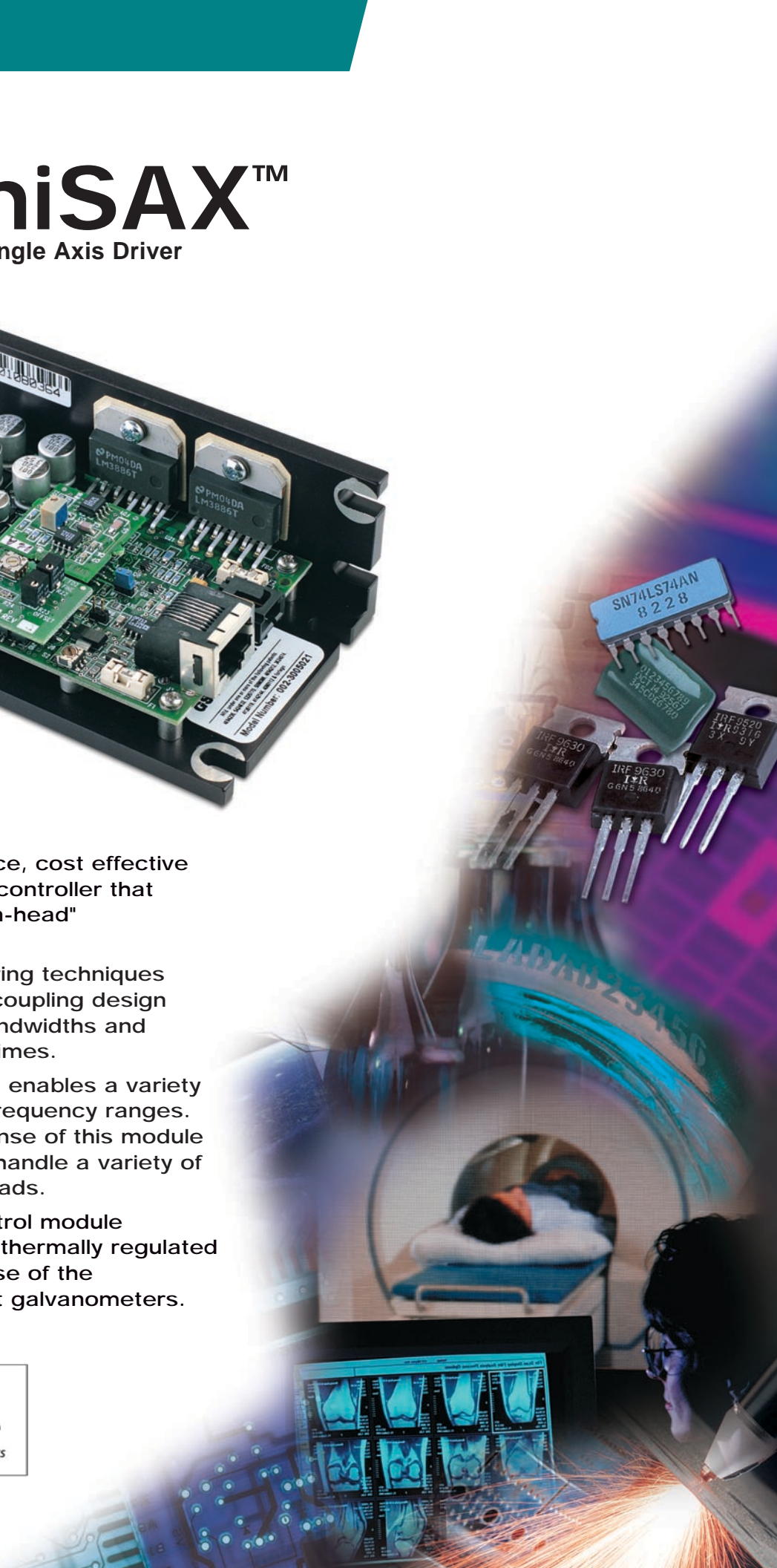


# MiniSAX™

Miniature Single Axis Driver



- Truly high performance, cost effective galvanometer servo controller that allows convenient, "in-head" packaging.
- Advanced servo filtering techniques together with a low-coupling design provide extended bandwidths and improved response times.
- Optional filter module enables a variety of adjustable notch frequency ranges. The frequency response of this module can be optimized to handle a variety of customer supplied loads.
- Optional thermal control module supports GSI Group's thermally regulated scanners, allowing use of the industry's lowest drift galvanometers.



The *MiniSAX™* (**M**iniature **S**ingle **A**Xis) servo controller is one of GSI Group's most renowned developments in galvanometric servo control technology. Advanced servo filtering techniques provide extended bandwidths and improved response times. The *MiniSAX* uses a modular design, providing the ability to readily configure the driver for specific applications. An optional filter module is available in a

variety of adjustable notch frequency ranges. The frequency response of this module can be optimized to handle a variety of customer supplied loads. A thermal control module is available to support GSI Group's temperature regulated scanners for maximum thermal stability.

*The MiniSAX is a truly high performance, cost effective galvanometer servo controller that allows convenient, "in-head" packaging.*

## MiniSAX Specifications

### Command Input Characteristics

Differential Voltage Range: ±3 volts differential for full scale

Input Impedance: 5 K Ohm differential

**Position Output** ±3 volts differential for full scale

### Power Input

Voltage ±15 to ±24 volts DC

Quiescent Current +170mA, -150mA  
(servo enabled, galvo resting w/o error, no thermal controller)

### Motor Drive Power

Dynamic Current max. 2.5 Amps RMS

Peak Current 10.0 Amps

### Control I/O Characteristics

Servo Ready OpenDrain, ActiveLow (50mAmax.)

Servo Enable TTL/CMOS Compatible, Active Low

Temp OK<sup>1</sup> Open Drain, Active Low (50 mA max.)

### Protection

Fully Fused Motor Output, Automatic Gain Control, and Thermal Controller<sup>1</sup>

Automatic Shutoff Over-position, Supply Undervoltage, Position Detector Inactive

**Temperature Range** 0°C to 50°C Operating

### Weight

66 grams  
(Includes all optional modules. Does not include mounting bracket)

### Size (W x L x H)

Not including mounting bracket 2 1/8" x 3 3/8" x 1 1/4"  
(54.5mm x 86.5mm x 31.35mm)

### Support Materials

MiniSAX Manual (PDF format)

*Notes: 1. Part of optional Temperature Controller • Specifications are subject to change. Consult GSI Group for details*

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