









-  Capacitor Charging Power Supplies
-  Laser Diode Drivers
-  CW Arc Lamp Products
-  Pulsed Flashlamp Drivers
-  Simmer Supplies
-  Pockels Cell Drivers

*For Industrial, Medical, Military,
and Scientific Applications*

Founded in 1979, Analog Modules, Inc. is an ISO 9001 certified company located in Longwood, (Orlando) FL. Sixty-five full-time employees are involved in design, development, and manufacturing. AMI produces a wide range of stand-alone and OEM analog electronic products for the laser and electro-optics industries. These products serve applications in medical, military, scientific, and industrial markets. As a company, AMI is committed to the production of high quality, reliable products and total customer satisfaction.

For comprehensive technical information, visit our website or call to discuss your application.

Laser electronic products manufactured by AMI include capacitor charging power supplies, simmer supplies, Pockels' cell drivers, CW arc lamp drivers, pulsed flashlamp drivers, and mid to high-power laser diode drivers. These products are available in a variety of packages from OEM modules to stand-alone, turn-key systems. Many of these products are certified to the European Medical Standard EN60601-1 (EN/IEC 60601-1-2:1993) as well as UL2601-1.

AMI also offers a complete line of sensors and amplifiers including hybrid laser rangefinder receivers, linear and logarithmic amplifiers, pulse stretchers, fiber optic links, and photodetector-amplifier modules.

Warranty

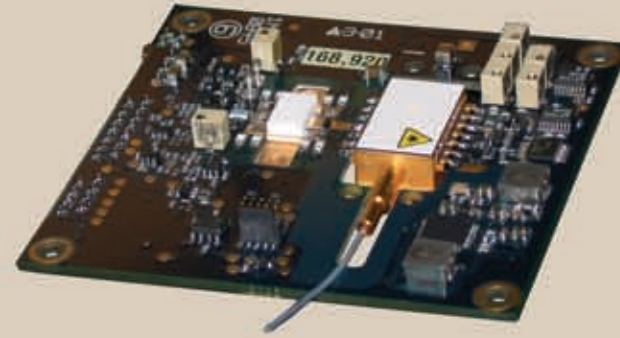
AMI warrants its products against defects in material and workmanship for a period of twelve (12) months after shipment. This warranty does not cover abuse, unauthorized modifications, improper application or installation, accidental damage or negligence in use or handling. Contact AMI for full warranty details.

Over 25 Years of Production and Design Experience

Laser Diode Drivers

AMI offers a line of diode drivers for both high current and low current applications. AMI's OEM programmable seed laser diode drivers (pump laser diode drivers) are ideal for driving 14-pin butterfly packaged laser diode modules for use in CW or pulsed fiber MOPA systems. OEM applications include material processing, LIDAR, laser communication, and rangefinding.

The Model 772A is a highly efficient, low voltage DC input power converter/laser diode driver designed to supply pulsed high current for laser diode-stack loads. AMI's Model 7701A is an OEM high current driver designed for high power DPSS laser and illumination applications. The compact OEM package provides currents up to 300A pulsed or 50A CW via a floating output. The new 780 Series drivers are efficient CW and QCW OEM driver assemblies for operating single high power laser diodes. Militarized and RoHS versions are available for most models.



Flashlamp and Diode Controllers

AMI has developed a complete family of micro-processor driven controllers for solid-state lasers. Based on a modular design approach, each controller is optimized for a given application or specific customer need. The Flashlamp series provides a capacitor charging power supply, fixed or variable pulse forming network, simmer supply and all the electronic circuitry needed to drive lamps for pumping solid-state lasers. Software control allows operating parameters such as pulse energy, pulse repetition rate, pulsewidth, and mode of operation to be easily

altered. Complete control of timing signals for multiple lamp and Q-switched applications is also provided.

AMI's Laser Diode controller provides pulsed output currents for diode pumping solid-state lasers. An internal microprocessor provides the flexibility and convenience of software control and the system status is presented on an easy-to-read LCD graphics display. The controller can be configured with one or two power modules for up to 2.8kW of output power. Protection features include an adjustable precision current limit, which protects the laser diode from exceeding its maximum rating.

For strictly CW Laser Diode applications, the Model 880D CW diode controller offers higher average powers at a reduced price. The Model 880D includes an active power factor corrected front end and can be configured with two or three internal power modules to provide up to 6kW for CW diode loads. Control of the Model 880D can be achieved from the front panel or remotely via an RS-232 interface. An external gate input allows for quasi-CW operation of the Model 880D.



Flashlamp Simmer Supplies

In pulsed laser systems, flashlamps are often simmered during the period of time between the main discharge pulses. Simmering is nothing more than allowing a trickle current (50mA to 10A) to flow in the lamp between pulses. Flashlamp simmering is beneficial for two reasons. First, having an established conduction path in the flashlamp at the time of the main discharge pulse results in less variation in shot to shot pulse energy. Second, because arc expansion during the pulse is less violent, lamp lifetimes are improved in simmered systems. In general, both stability and lamp lifetime improve with increasing simmer current.

AMI's simmer supplies are powered from a 24VDC source and provide both a built-in automatic ignition restrike circuit and a post-flash boost mechanism. These features minimize the possibility of missing pulses when operating with a continuous train of laser pulses.



Capacitor Charging Power Supplies

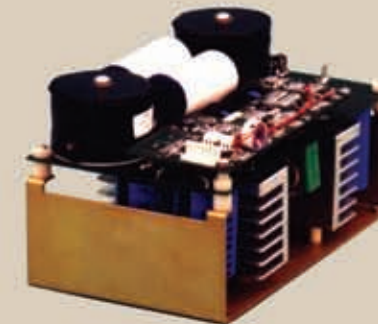
AMI's line of AC input capacitor charging power supplies provide unequalled performance in a variety of package configurations. These supplies provide the highest power density and best voltage vs. power curve available on the market today. Most supplies are certified to the European medical safety standard EN60601-1 (EN/IEC 60601-1-2:1993) as well as UL2601-1. AMI's power supplies are ideal for medical and industrial solid-state pumping applications.

Rugged and Reliable. AMI also offers a broad line of compact, high voltage capacitor charging power supplies designed for use from a DC source. Available with a variety of output power levels, these modules are ideal for OEM applications. Based on a proven design topology, these modules have been successfully employed in both commercial and military systems since 1980.



Pockels Cell Drivers

AMI's line of Pockels cell drivers employs MOSFET technology which provides excellent noise immunity and a smooth output waveform. AMI's OEM drivers offer reliable, high voltage pulsing in compact surface mount modules. These drivers include an internal high voltage power supply and provide a monitor to observe the high voltage output amplitude prior to the pulse. The Model 8261A offers pulsewidths from 5µs to DC, providing operation as a Pockels cell or shutter driver. AMI's Pockels cell drivers meet the stringent reliability requirements of medical, military and industrial applications.



CW Arc Lamp Drivers & Igniters

For pumping continuous-wave arc lamps, AMI can supply turn-key systems and both rack-mount custom packages and individual modules for OEM use. Efficient and reliable, these products provide for both lamp ignition and control of lamp currents up to 60A. All CW products are designed to meet the European medical safety standard EN 60601-1 (EN/IEC 60601-1-2:1993) making these products the ideal choice for both medical and industrial laser applications.

Custom OEM Flashlamp Drivers

AMI designs and manufactures OEM flashlamp drivers tailored to meet specific package and operational requirements. AMI's custom OEM drivers are currently used by laser manufacturers in medical, industrial and research applications. Units typically include a capacitor charging power module, simmer supply, Pulse Forming Network and user specified interface. Drivers can be configured for fixed or variable pulsewidth operation, 115 or 230VAC input and up to 3500W of average output power. Contact AMI to discuss your specific requirements.

