



High-Voltage PIN diode drivers can be configured as PC-controllable cards that are compatible with standard 19 inch rack mounting. On-board self test of temperature, currents, voltages, and logic states assures reliability. Control and self-test functions are transmitted by a built-in optically-isolated 9-pin serial port.

Shown above is a rack of 34 driver boards, each of which contains:

- Four independent 500 Volt PIN diode driver channels, .8 to 2 Amperes
- Eight channels of self-test (Positive current, negative current, heatsink temperature, monitor of all four output voltages, monitor of logic state of board)
- Line receivers and line drivers for high-speed bus operations
- Double set of data latches to hold "look-ahead" values
- 8-bit address bus comparator to allow 255 boards per system

A single complete system consists of four racks of 36 quad drivers, resulting in a driver system having a total of 544 independently controllable outputs. Impellimax was responsible for the design of the complete system, including the motherboard backplanes, power distribution boards, and the opto-isolated PC-interface board. We can provide a turn-key assembly including PC board layout, fabrication and electrical testing in coordination with your engineering requirements.

Our patent-pending high-voltage PIN diode driver topology was used, which gives switching speeds of less than 2 microseconds and full DC-coupled operation with a minimal component count. Current spiking and wide output voltage compliance result in optimal switching for high power diodes.

The system is controlled by Windows 95™ compatible software.

Although this system is notable for it's high power specifications and enormous quantity of channels, similar construction methods and technologies can bring the value of our driver expertise to your system-level project.

Switch Drivers
Linearizers
Special Assemblies
Sensor Products
Software
Services
Facilities
Press Release
Miscellaneous