# iLASER V PLUS Laser Printer Controller

- 2 Mbytes ROM for Resident PCL Emulator and Fonts
- 2, 2, 2, 2 Wait-State-Burst-Memory Access
- 512 Kbytes Minimum RAM Requirement for High Performance
- External ROM/RAM Expansion Module
- Front Control-Panel Interface
- High-Speed Print Engine/Host Interfaces

The iLASER V PLUS, a derivative of iLASER V, is a cost effective i960® processor-based page printer controller. It is engineered to operate at a 10 MHz clock rate with options for 16 MHz and 20 MHz. The iLASER V PLUS in a PCL application offers three to five times the performance of NTX PDL printers. The main goal of this controller is to provide a competitive edge for a printer manufacturer in the low cost laser printer marketplace by reducing hardware development time and minimizing system cost.

To make the iLASER V PLUS more manufacturable, Intel adopts a modular approach in designing the controller to provide extensive field upgrade capabilities. This controller is comprised of three assemblies – the Main Controller, the Serial/Parallel I/O Adapter, and the Option ROM/RAM Board – that are designed to reside in a TEC LB-1306 print engine. The schematics of the controller are available so they can be modified to any engine configuration. The host interface of the controller is designed to accommodate additional future options.

The standard on-board RAM storage is provided by a 16-bit-wide DRAM array using 512 Kbytes of 100 ns DRAMs in a configuration of four 256K x 4 DRAM devices. Fast page-mode DRAMs are used to achieve 2, 1, 1, 1 wait-states for burst accesses. A RAM expansion connector is equipped to allow an additional 4 Mbytes
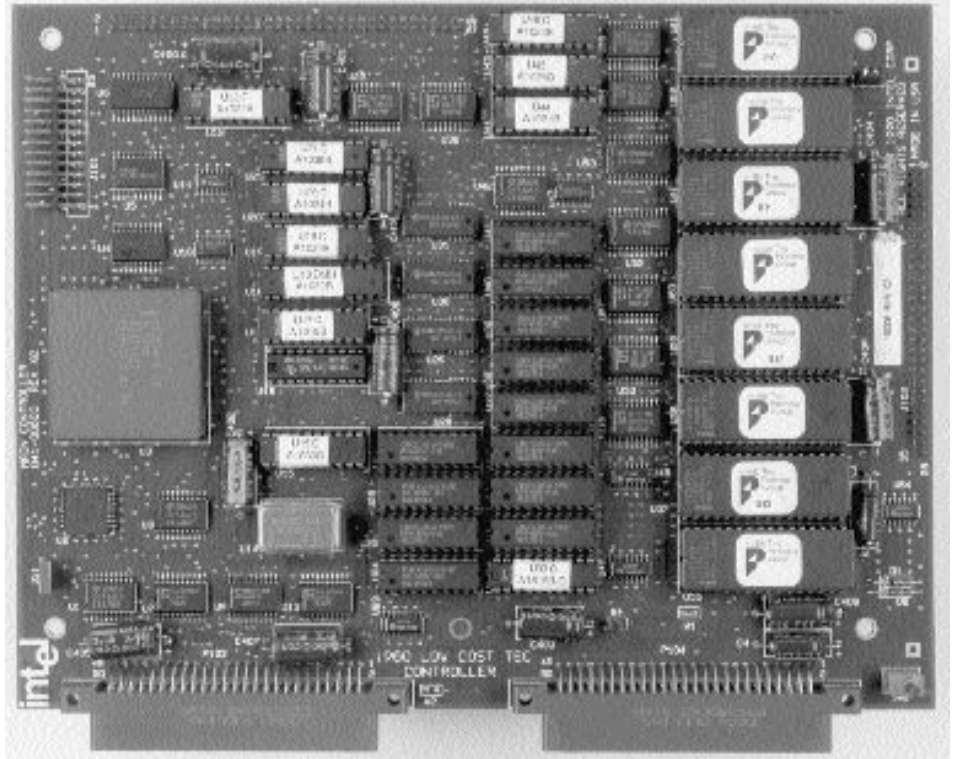
to be installed via an Option ROM/RAM Board. A 4 Mbyte maximum ROM capacity is available on the Main Controller. The Option ROM/RAM Board provides an additional 8 Mbytes of ROM space for other emulations or more fonts.

The iLASER V PLUS video section is based on a 512-byte FIFO. The controller board contains an RS-232/RS-422 serial interface and a Centronics-compatible parallel interface. Baud rates of up to 19,200 are supported by the serial interface. Front-panel control logic for TEC's LB-1306 print engine is also provided on the board.

HOST SYSTEMS SUPPORTED:
DOS-based PC

PROCESSORS SUPPORTED:
i960 KA/KB Processors

PROCESSORS USED:
i960 KA Processor

AVAILABILITY:
This is not a production board, but schematics can be made available to interested parties.

CONTACT:
Local Intel Sales Office
WWW: http://www.intel.com/embedded/

intel.