"EXCIMER" –
MOTOROLA'S POWERPC™ EVALUATION BOARD

Excimer is an evaluation board that implements a minimal PowerPC system. The board demonstrates the capabilities of a PowerPC 603e microprocessor™ and provides a system to investigate the PowerPC architecture™. It provides a compact and inexpensive target for learning embedded PowerPC software development.

The Excimer design is described in the Motorola application note AN1769/D, *Designing a Minimal PowerPC System*. Schematics and FPGA equations are provided. The ROM monitor program is available in source code from the Motorola website at: **http://www.mot.com/SPS/PowerPC/teksupport/tools/DINK32**
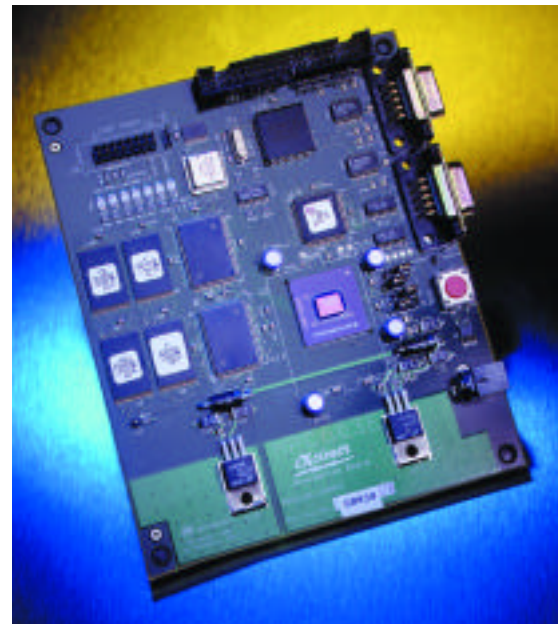
System Features

- PowerPC 603e microprocessor
- 1-Mbyte of RAM
- 4-Mbyte of FLASH
- 2 Serial ports
- JTAG/COP connector
- Berg connector for customer expansion and I/O
- DINK32 monitor in FLASHROM

Excimer Kit Contents

- Excimer board with PowerPC 603e microprocessor @266MHz
- 5 volt power supply
- Null-modem serial cable
- Macraigor Wiggler™ JTAG/COP emulator/debugger
- Parallel port cable for Wiggler
- DINK32 User's Manual
- Minimal PowerPC system application note
- Excimer schematics
- Evaluation copies of compilers/debuggers (as provided by the vendors)

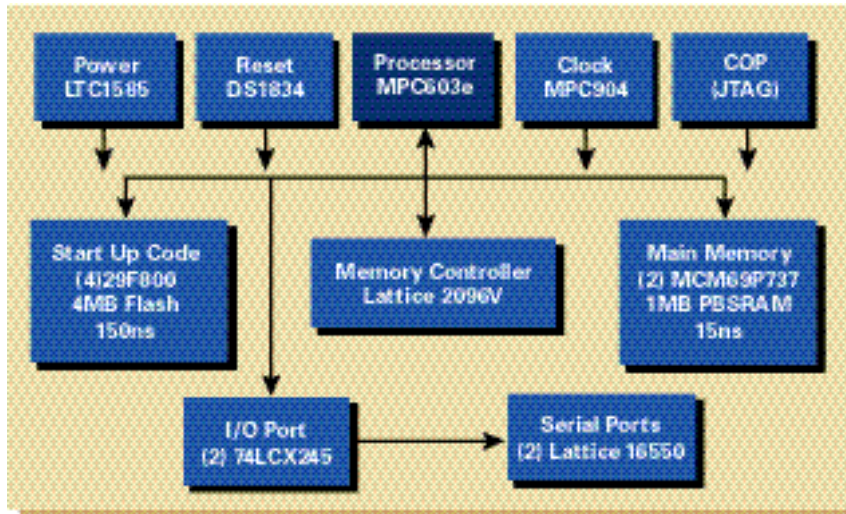### MOTORLA'S "EXCIMER" EVALUATION BOARD FOR POWERPC

Student Laboratory Exercises Available from Motorola

The University of Puerto Rico-Mayaguez, in cooperation with Motorola, has developed a Laboratory manual of PowerPC embedded programming exercises for Excimer. The experiments guide the student through the topics shown in the list of exercises below. Solution code is available for several different software development environments.

- **Laboratory Exercise Titles**
  - Compile a Simple C Program
  - Download to Excimer
  - Get Keyboard Input and Display
  - Blink The On-Board LEDs
  - Control LEDs from Keyboard
  - A Simple Scanf Function

- Assembly Language Programming
- Linking Assembly Language and C
- Converting Integers to Floating Point
- Dhrystone Benchmarking
- Linpack Benchmarking
- Cache Impact on Benchmark Metrics
- Programming Flash ROM

PowerPC™

✳DigitalDNA from Motorola

Excimer X3 Embedded Evaluation Board
Block Diagram

Documentation

The Excimer system documentation and information is available on the Motorola website at (this URL is case sensitive):

http://www.mot.com/SPS/PowerPC/teksupport/teklibrary/index.html

Device Part Number

PPCEVAL-XMER3

MOTOROLA