



## TMS 9940 16-BIT MICROCOMPUTER

### DESCRIPTION

The TMS 9940 is a single-chip, 16-bit microcomputer containing a CPU, memory (RAM and EPROM), and extensive I/O. The instruction set of the TMS 9940 is subset of the TMS 9900 instruction set and includes capabilities offered by minicomputers. The unique memory-to-memory architecture features multiple register files, resident in the RAM, which allow faster response to interrupts, and increased programming flexibility. The memory consists of 128 bytes of RAM and 2048 bytes of EPROM. The TMS 9940 implements four levels of interrupts including an internal decremter which can be programmed as a timer or an event counter. All members of the TMS 9900 family of peripheral circuits are compatible with the TMS 9940. The TMS 9940 is fully supported by software and hardware development systems.

### KEY FEATURES

- 16-bit instruction word
- Minicomputer instruction set including multiply and divide
- 2048 bytes of EPROM or MROM on-chip
- 128 bytes of RAM on-chip
- 16 general purpose registers
- 4 prioritized interrupts
- On-chip timer/event counter
- 32 bits general purpose I/O
- 256 bits I/O Expansion
- Multiprocessor system interface
- Single 5 volt power supply
- Power down capability for low stand-by power
- N-channel Silicon-gate MOS

