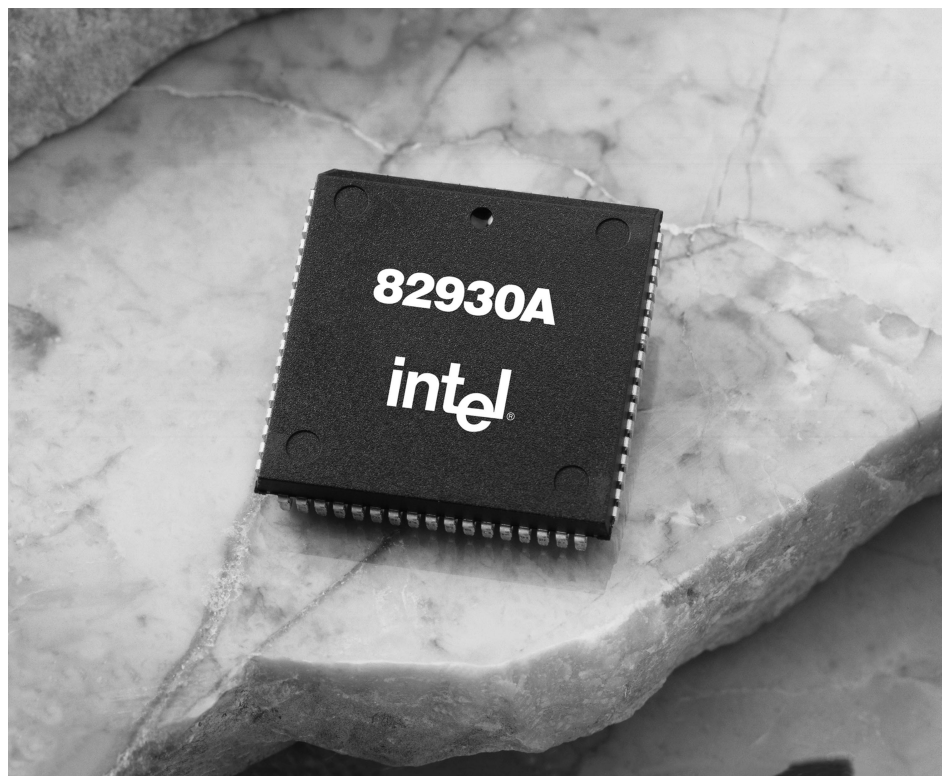# 82930A Universal Serial Bus Microcontroller

- Universal Serial Bus Specification Compatibility
- Serial Bus Interface Engine (SIE)
- Four Transmit FIFOs
- Four Receive FIFOs
- Automatic Transmit/Receive FIFO Management
- Four Endpoint Interrupt Vectors
- Phase Lock Loop
- 256-Kbyte External Code/Data Memory Space
- Power-Saving Idle and Powerdown Modes
- User-Selectable Configurations
- 1 Kbyte On-Chip Data RAM
- Four Input/Output Ports
- Programmable Counter Array (PCA)
- Industry Standard MCS® 51 Microcontroller UART
- Hardware Watchdog Timer
- Three Flexible 16-Bit Timer/Counters
- Code Compatibility With MCS® 251 Microcontroller Architecture
- 12 MHz Operation

The MCS 251 microcontroller architecture brings high performance, ample memory mix and addressing, low power, low noise, efficient high-level language support, enhanced instruction set, integrated features and functionality to the 82930A.

The 82930A is a CPU device with up to 256 Kbytes of external code/data memory space, 1 Kbyte of on-chip data RAM, and 40 bytes of general purpose registers which reside in the CPU as register file. There are 16 possible byte registers, 16 possible word registers and 10 possible Dword registers in the register file depending on the combinations used.

Interfacing to external memory has the flexibility of adding up to 3 wait states allowing the use of slower memory devices. External instruction fetches can increase performance by 2x using Page mode which swaps the data onto the high byte of the address.

Code for the 82930A can use either the MCS 51 or MCS 251 microcontroller instruction set. This gives the user the option to protect their software investment or gain maximum performance in their application.

The 82930A features a rich combination of integrated peripherals that make it an even more powerful microcontroller. The Programmable Counter Array (PCA) provides the flexibility for applications that require real time compare/capture, high speed I/O and pulse width modulation capabilities. Also included is an enhanced serial port, three 16-bit timer/counters, a hardware watchdog timer, four 8-bit I/O ports and two power saving modes: idle and powerdown.

PRODUCT FAMILY:
82930A

DEVELOPMENT PLATFORMS:
82930USBEVALKIT

ENVIRONMENT:
DOS

AVAILABILITY:
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