

Worldwide Microcontroller Executive Summary

MARKET OVERVIEW

Microcontrollers are everywhere. Typically, microcontrollers are used for controlling and monitoring equipment and real-time events. Their data-handling capability is designed for simple integer data types. Microcontrollers are used in cars, TVs, stereos, VCRs, personal computers, microwave ovens, and other consumer products.

Trends in microcontrollers are as follows:

- Higher level of integration
- Higher reliability
- Denser packaging
- More interrupt-driven tasks
- More I/O on single chip
- More memory on-chip
- One-time-programmable chips

MARKET SIZE

Total microcontroller revenue was more than \$1.1 billion in 1985, down approximately 21 percent from 1984. Microcontroller manufacturers whose revenue decreased by more than 21 percent during 1985 also lost market share. Total MCU revenue has grown at a compound annual rate (CAGR) of more than 28.6 percent since 1980. This means that the industry has nearly tripled in the last four years.

Microcontroller unit shipments numbered more than 338 million during 1985, down only 5 percent from 1984 shipments. MCU shipments have increased at a CAGR of more than 23.5 percent since 1980.

There were 29 worldwide merchant manufacturers of microcontrollers during 1985; of these, only 8 were Japanese. Of these 8 Japanese manufacturers, NEC, Toshiba, Matsushita, and Hitachi were the top 4 manufacturers, shipping more than 50 percent of total MCUs worldwide.

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MARKET FORECAST

During 1986, microcontroller revenue is expected to increase approximately 27 percent, to \$1.4 billion, from 1985 revenue. During the next five years, from 1986 through 1991, microcontroller revenue is expected to grow at an 18 percent CAGR. Unit growth is expected to increase slightly more than revenue. Estimated 1986 unit shipments of 434 million and 1991 unit shipments of 1.2 billion reflect a 22.9 percent CAGR during this time.