

Preliminary

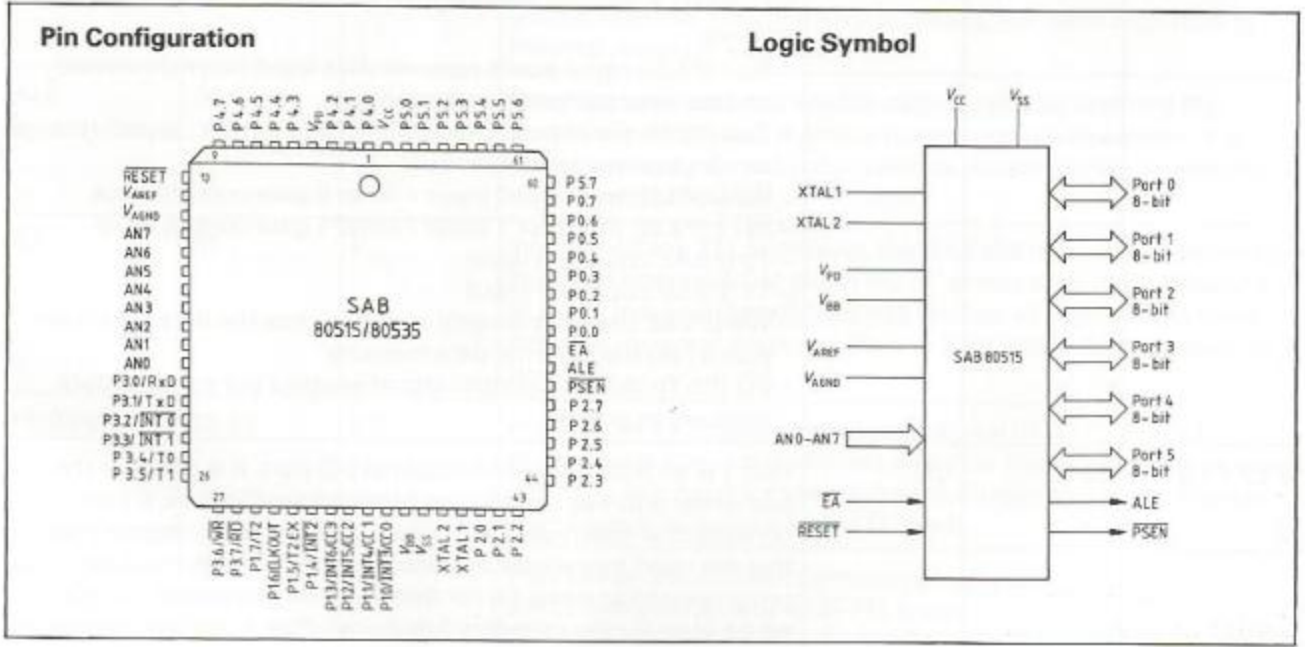
SAB 80515/80535 Ext. Temp. 8-Bit Single-Chip Microcontroller

Extended Temperature Ranges:

T40/85	-40°C to + 85°C	12 MHz operation
T40/110	-40°C to +110°C	10 MHz operation

- SAB 80515-N-T40/85 Microcontroller with factory mask-programmable ROM
- SAB 80515-N-T40/110
- SAB 80535-N-T40/85 Microcontroller for external ROM
- SAB 80535-N-T40/110

- Version of the SAB 80515/80535 for two extended temperature ranges
- 8K × 8 ROM (SAB 80515 only)
- 256 × 8 RAM
- Six 8-bit I/O ports, one 8-bit input port for analog signals
- Three 16-bit timer/counters
- Highly flexible reload, capture, compare capabilities
- Full-duplex serial channel
- Twelve interrupt vectors, four priority levels
- 8-bit A/D converter with eight multiplexed inputs and programmable internal reference voltages
- 16-bit watchdog timer
- V_{PD} provides standby current for 40 bytes of RAM
- Boolean processor
- 256 bit-addressable locations
- Most instructions execute in 1 μs
- 4 μs multiply and divide
- External memory expandable up to 128 Kbyte
- Backwardly compatible with SAB 8051
- 68-pin plastic leaded chip carrier package (PLCC 68)



The SAB 80515/80535 Ext. Temp. is a powerful member of the Siemens SAB 8051 family of 8-bit microcontrollers. The SAB 80515/80535 Ext. Temp. is available for the industrial temperature range (-40 to +85°C) and the automotive temperature range (-40 to +110°C). It is fully compatible with the standard SAB 80515/80535 with respect to architecture, instruction set and software portability. The SAB 80515/80535 Ext. Temp. is a stand-alone, high-performance single-chip microcontroller

designed in +5V N-channel, silicon-gate Siemens MYMOS technology. While maintaining all the SAB 8051 operating characteristics, the SAB 80515/80535 Ext. Temp. incorporates several enhancements which significantly increase design flexibility and overall system performance. The SAB 80535 is identical with the SAB 80515 except that it lacks the on-chip program memory. The SAB 80515/80535 Ext. Temp. is supplied in a 68-pin plastic leaded chip carrier package (PLCC 68).