



## 82078 CHMOS SINGLE-CHIP FLOPPY DISK CONTROLLER

- **Small Footprint and Low Height Packages**
- **Supports Standard 5.0V as Well as Low Voltage 3.3V Platforms**
  - Selectable 3.3V and 5.0V Configuration
  - 5.0V Tolerant Drive Interface
- **Enhanced Power Management**
  - Application Software Transparency
  - Programmable Powerdown Command
  - Save and Restore Commands for 0V Powerdown
  - Auto Powerdown and Wakeup Modes
  - Two External Power Management Pins
  - Consumes No Power While in Powerdown
- **Programmable Internal Oscillator**
- **Floppy Drive Support Features**
  - Drive Specification Command
  - Media ID Capability Provides Media Recognition
  - Drive ID Capability Allows the User to Recognize the Type of Drive
  - Selectable Boot Drive
  - Standard IBM and ISO Format Features
  - Format with Write Command for High Performance in Mass Floppy Duplication
- **Integrated Host/Disk Interface Drivers**
- **Integrated Analog Data Separator**
  - 250 Kbits/sec
  - 300 Kbits/ sec
  - 500 Kbits/ sec
  - 1 Mbits/sec
  - 2 Mbits/sec
- **Integrated Tape Drive Support**
  - Standard 1 Mbps/500 Kbps/ 250 Kbps Tape Drives
  - New 2 Mbps Tape Drive Mode
- **Perpendicular Recording Support for 4 MB Drives**
- **Fully Decoded Drive Select and Motor Signals**
- **Programmable Write Precompensation Delays**
- **Addresses 256 Tracks Directly, Supports Unlimited Tracks**
- **16 Byte FIFO**
- **Single-Chip Floppy Disk Controller Solution for Portables and Desktops**
  - 100% PC-AT\* Compatible
  - 100% PS/2\* Compatible
  - 100% PS/2 Model 30 Compatible
  - Fully Compatible with Intel's 386SL Microprocessor SuperSet
  - Integrated Drive and Data Bus Buffers
- **Available in 64 Pin QFP and 44 Pin QFP Package**  
(See Package Specification Order Number 240800, Package Type S)

The 82078 Product Family brings a set of enhanced floppy disk controllers. These include several features that allow for easy implementation in both the portable and desktop market. The current family includes a 64 pin and a 44 pin part in the smaller form factor QFP package. The 3.3V version of the 64 pin part provides an ideal solution for the rapidly emerging 3.3V platforms. It also allows for a 5.0V tolerant floppy drive interface that lets the users retain their normal 5.0V drives. Another version of the 64 pin part provides support for 2 Mbps data rate tape drives.

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February 1994

Order Number: 290468-003

**Table 1-0. 64 Pin Part Versions**

	3.3V	5.0V	2 Mbps Data Rate
82078SL	X	X	
82078-1		X	X

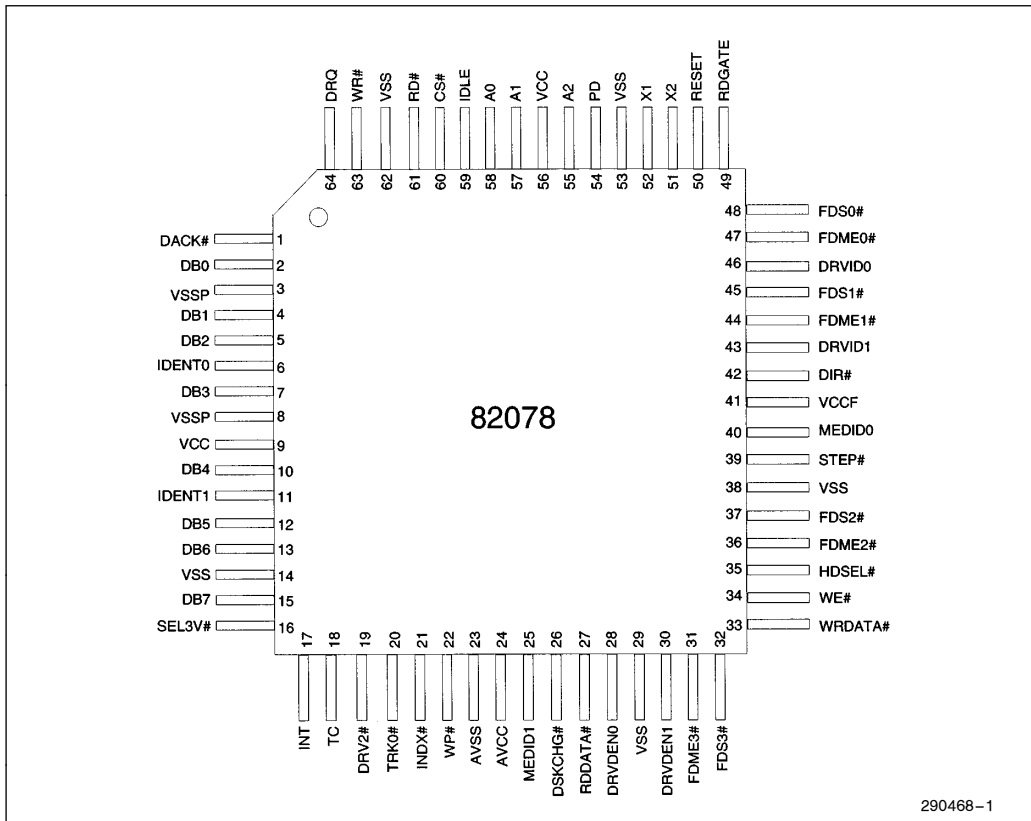
The 44 pin is targeted for platforms that are operated at 3.3V or 5.0V and do not require more than two drive support. The 82078-5 is designed for price sensitive 5.0V designs which do not include 4 MB drive support.

**Table 2-0. 44 Pin Part Versions**

	3.3V	5.0V	1 Mbps Data Rate
82078		X	X
82078-5		X	
82078-3	X		X

Both parts can be operated at 1 Mbps/500 Kbps/300 Kbps/250 Kbps. Additionally, one version of the 64 pin part provides 2 Mbps data rate operation specific for the new tape drives.

The 82078 is fabricated with Intel's advanced CHMOS III technology.



290468-1

