



Integrated Device Technology, Inc.

# CMOS STATIC RAM EXCLUSIVE-OR LATCHED ADDRESSES 64K (8K x 8-BIT)

**ADVANCE  
INFORMATION  
IDT 71578S  
IDT 71578L**

### FEATURES:

- High-Speed Address Access Time
  - Military: 25/35/45ns
  - Commercial: 20/25/35ns
- On-Board Address Latches
- Exclusive-Or on the Least Significant Bit
- Low-Power Consumption and High-Reliability
- Battery Back-Up Operation: 2-Volt Data Retention (L Version Only)
- Produced with Advanced CEMOS™ High-Performance Technology
- Single 5V (±10%) Power Supply
- Input and Output Directly TTL Compatible
- Three-State Output
- Static Operation No Clocks or Refresh Required
- Military Product Compliant to MIL-STD-883, Class B

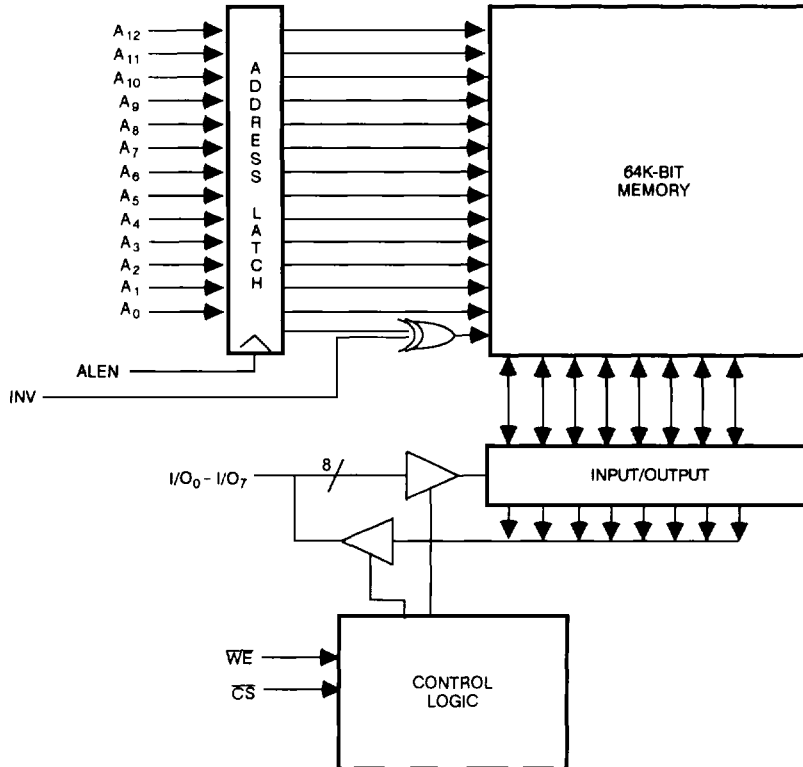
### DESCRIPTION:

The 71578 is 65,536 bit high-speed static RAM organized as 8K x 8. It is fabricated using IDT's high-performance, high-reliability CEMOS™ technology.

Address access times as fast as 20ns are available with typical power consumption of only 250mW. The 71578 excels in cache applications because of the on-chip address latches, which reduce system part count. An exclusive-or function on the least significant address bit simplifies implementation of "burst-mode" cache refills. This device is the preferred solution with 64K Byte Caches for the Intel 80386. The low-power (L) version also offers a battery backup data retention capability where the circuit typically consumes only 10mW operating off a 2V battery.

All inputs and outputs of the IDT71578 are TTL-compatible and operation is from a single 5V supply, simplifying system designs. Fully static asynchronous circuitry is used, requiring no clocks or refreshing for operation.

### FUNCTIONAL BLOCK DIAGRAM



CEMOS is a trademark of Integrated Device Technology, Inc.

MILITARY AND COMMERCIAL TEMPERATURE RANGES

JANUARY 1989