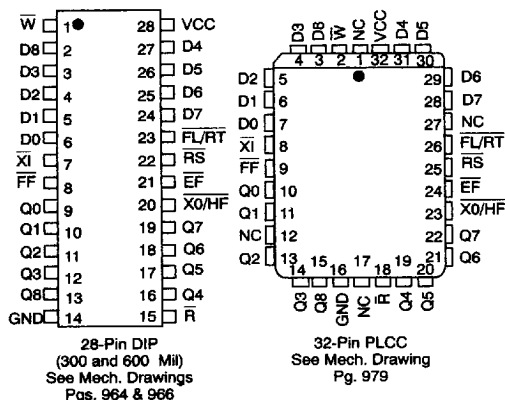


### FEATURES

- First-in, first-out memory-based architecture
- Flexible 1024 x 9 organization
- Low-power HCMOS technology
- Asynchronous and simultaneous read/write
- Bidirectional applications
- Fully expandable by word width or depth
- Empty and full warning flags
- Half-full flag capability in single-device mode
- Retransmit capability
- Available in 50ns, 65ns, 80ns, and 120ns access times
- Optional industrial temperature range -40°C to +85°C available, designated N

### PIN ASSIGNMENT



### PIN DESCRIPTION

W	— WRITE
$\bar{R}$	— READ
$\overline{RS}$	— RESET
$\overline{FL/RT}$	— First Load/Retransmit
D <sub>0-8</sub>	— Data In
Q <sub>0-8</sub>	— Data Out
XI	— Expansion In
$\overline{XO/HF}$	— Expansion Out/Half Full
FF	— Full Flag
EF	— Empty Flag
V <sub>CC</sub>	— 5 Volts
GND	— Ground
NC	— No Connect

### DESCRIPTION

The DS2010 FIFO Chip implements a first-in, first-out algorithm featuring asynchronous read/write operations, full, empty, and half-full flags, and unlimited expansion capability in both word size and depth. The DS2010 is functionally and electrically equivalent to the

DS2009 512 x 9 FIFO, with the exceptions listed in the notes for DC Electrical Characteristics of the DS2009 data sheet. Refer to the DS2009 data sheet for detailed device description.