

Complete data sheet available via web, Harris' home page: <http://www.semi.harris.com> or via Harris AnswerFAX, see Section 17

ICM7243

August 1997

8-Character, Microprocessor-Compatible, LED Display Decoder Driver

Features

- 14-Segment and 16-Segment Fonts with Decimal Point
- Mask Programmable for Other Font-Sets Up to 64 Characters
- Microprocessor Compatible
- Directly Drives LED Common Cathode Displays
- Cascadable Without Additional Hardware
- Standby Feature Turns Display Off; Puts Chip in Low Power Mode
- Sequential Entry or Random Entry of Data Into Display
- Single +5V Operation
- Character and Segment Drivers, All MUX Scan Circuitry, 8 x 6 Static Memory and 64-Character ASCII Font Generator Included On-Chip

Ordering Information

PART NUMBER	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
ICM7243AIJL	-25°C to 85	40 Ld CERPDIP	F40.6
ICM7243AIPL	-25°C to 85	40 Ld PDIP	E40.6
ICM7243BIJL	-25°C to 85	40 Ld CERPDIP	F40.6
ICM7243BIPL	-25 to 85	40 Ld PDIP	E40.6

Description

The ICM7243 is an 8-character, alphanumeric display driver and controller which provides all the circuitry required to interface a microprocessor or digital system to a 14-segment or 16-segment display. It is primarily intended for use in microprocessor systems, where it minimizes hardware and software overhead. Incorporated on-chip are a 64-character ASCII decoder, 8 x 6 memory, high power character and segment drivers, and the multiplex scan circuitry.

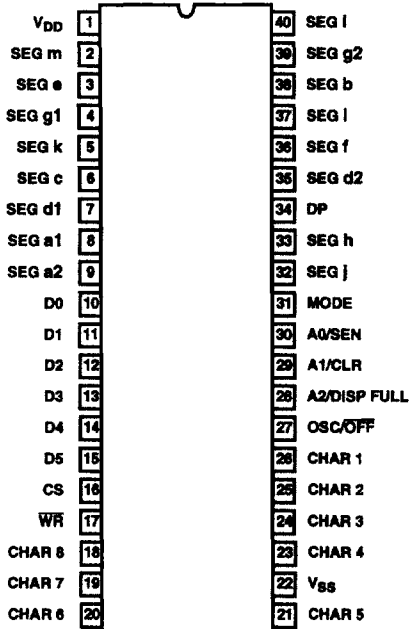
6-bit ASCII data to be displayed is written into the memory directly from the microprocessor data bus. Data location depends upon the selection of either **Sequential** (MODE = 1) or **Random** access mode (MODE = 0). In the **Sequential Access** mode the first entry is stored in the lowest location and displayed in the "left-most" character position. Each subsequent entry is automatically stored in the next higher location and displayed to the immediate "right" of the previous entry. A DISPlay FULL signal is provided after 8 entries; this signal can be used for cascading devices together. A **CLear** pin is provided to clear the memory and reset the location counter. The **Random Access** mode allows the processor to select the memory address and display digit for each input word.

The character multiplex scan runs whenever data is not being entered. It scans the memory and CHARacter drivers, and ensures that the decoding from memory to display is done in the proper sequence. Intercharacter blanking is provided to avoid display ghosting.

ICM7243

Pinouts

**ICM7243A (16-SEGMENT CHARACTER)
(PDIP, CERDIP)
TOP VIEW**



**ICM7243B (14-SEGMENT CHARACTER)
(PDIP, CERDIP)
TOP VIEW**

