



## iSBC 016 16K-BYTE RAM MEMORY BOARD

**iSBC-80 RAM memory expansion through direct bus interface**

**Jumper selectable starting address for 16K contiguous addresses**

**16K-byte read/write memory capacity**

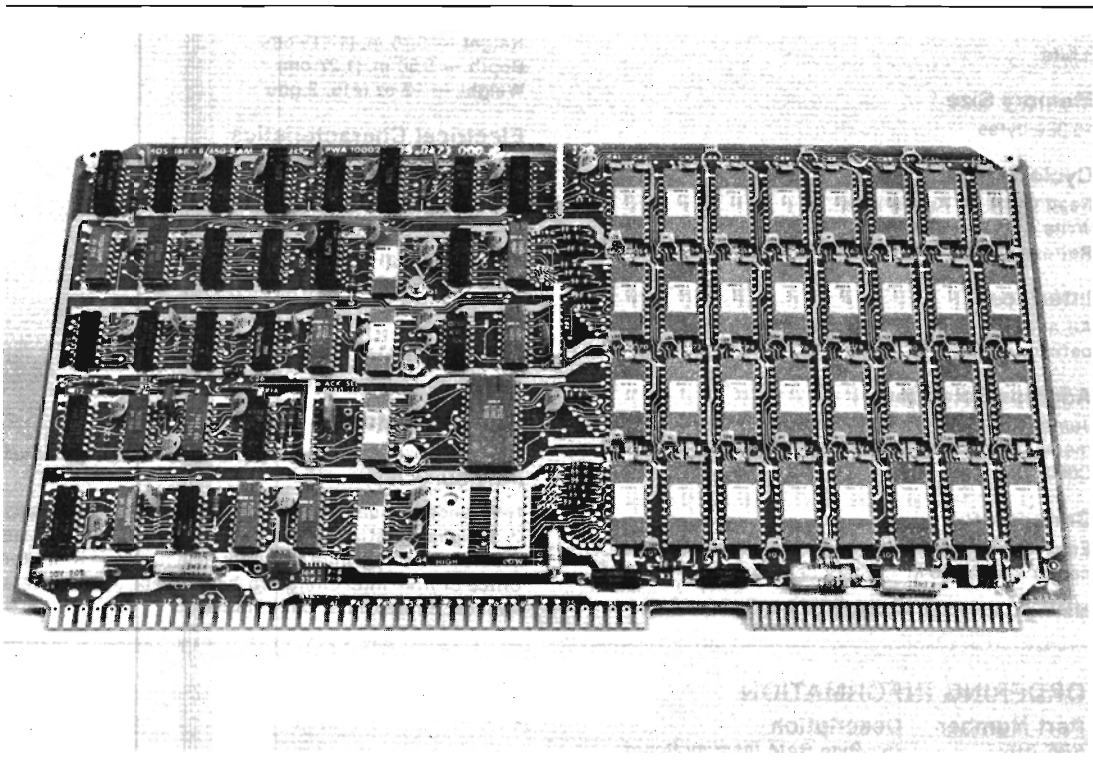
**Read/write data buffers**

**On-board hardware for refresh of all dynamic memory elements**

**TTL compatible data, address, and command signal interface**

**5**

The iSBC 016 16K-Byte Ram Memory Board is a member of Intel's complete line of iSBC 80 memory and I/O expansion boards. The iSBC 016 interfaces directly to any iSBC 80 single board computer via the system bus to expand RAM memory capacity. The board contains 16K bytes of read/write memory, implemented using 2107 dynamic RAM memory components. On-board refresh hardware refreshes 64 bit positions of all 32 RAM elements every 14 microseconds. Each refresh cycle utilizes memory for 735 nanoseconds. If a read or write cycle is in progress when a refresh cycle is scheduled to begin, the refresh cycle is postponed until the end of the cycle. The iSBC 016 contains a jumper used to select contiguous 16K-byte address segments starting in locations 0000, 4000, 8000, or C000. Read/Write buffers reside on the board to buffer all data written into or read from the memory array. All data, address, and command signals on the bus interface are TTL compatible.



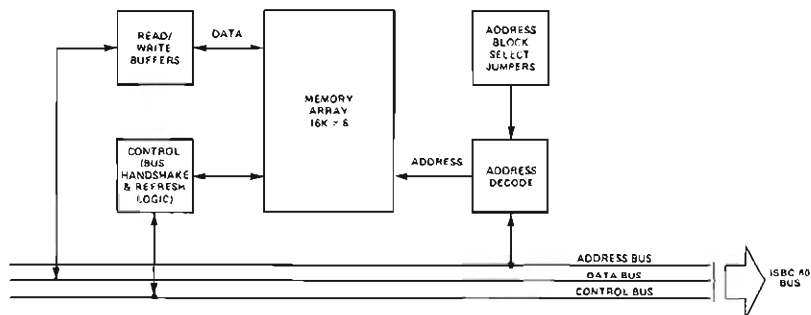


Figure 1. ISBC 016 16K RAM Memory Expansion Board Block Diagram

## SPECIFICATIONS

### Word Size

8 bits

### Memory Size

16,384 bytes

### Cycle Times

Read Cycle — 735 ns max

Write Cycle — 1360 ns max

Refresh Cycle — 735 ns max

### Interface

All address, data, and command signals are TTL compatible.

### Address Selection

Jumper selection of base address of 16K contiguous memory block to reside in locations 0000, 4000, 8000, or C000.

### Connectors

**Edge Connector** — 86-pin double-sided PC edge connector with 0.156-in. contact centers.

**Mating Connector** — Viking 3KH43/9AMK12

## Physical Characteristics

**Width** — 12.00 in. (30.48 cm)

**Height** — 6.75 in. (17.15 cm)

**Depth** — 0.50 in. (1.27 cm)

**Weight** — 12 oz (415.2 gm)

## Electrical Characteristics

### DC Power Requirements

$V_{CC} = +5V$  DC  $\pm 5\%$

$I_{CC} = 1.2A$  typ; 1.5A max

$V_{DD} = +12V$  DC  $\pm 5\%$

$I_{DD} = 0.7A$  typ; 1.0A max

$V_{BB} = -5V$  DC  $\pm 5\%$

$I_{BB} = 0.2$  mA typ; 3.2 mA max

## Environmental Characteristics

**Operating Temperature** — 0°C to 55°C

## Reference Manual

**9800279A** — ISBC 016 Hardware Reference Manual (NOT SUPPLIED)

Reference manuals are shipped with each product only if designated SUPPLIED (see above). Manuals may be ordered from any Intel sales representative, distributor office or from Intel Literature Department, 3065 Bowers Avenue, Santa Clara, California 95051.

## ORDERING INFORMATION

Part Number	Description
SBC 016	16K-Byte RAM Memory Board