

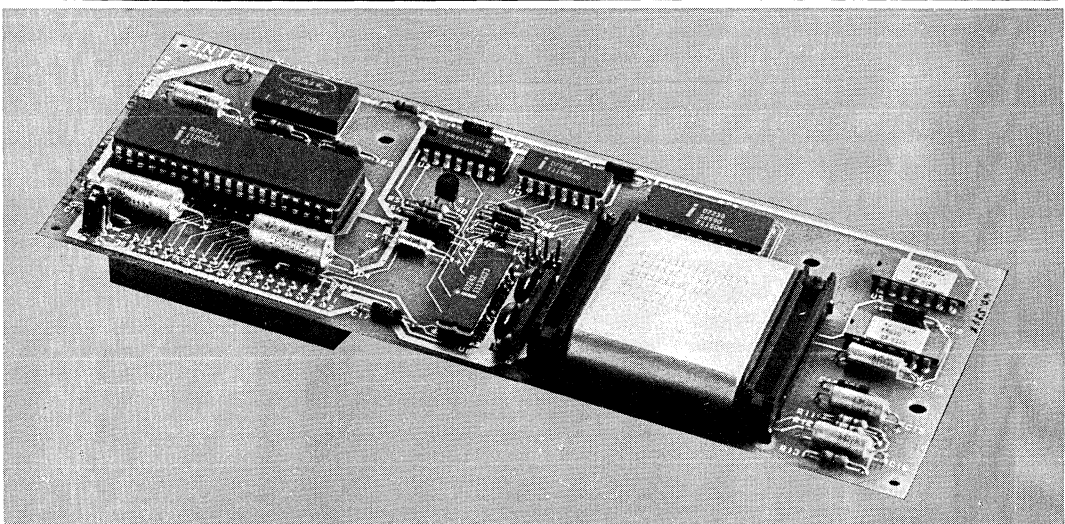
iSBX 251TM MAGNETIC BUBBLE MULTIMODULETM BOARD

- iSBXTM bus compatible
- Capacity: 128K bytes
- Performance:
 - average access time: 48ms
 - burst data rate: 12.5K bytes/sec
- DMA compatibility
- Non-volatile storage
- Automatic error correction
- Operates from standard +5V and +12V power supplies
- Software compatibility with iRMXTM Operating System
- Power fail data protection
- Low power consumption

The Intel iSBX 251 magnetic bubble MULTIMODULE board is a completely assembled and tested non-volatile memory based on the Intel 7110 one-megabit bubble memory. This board plugs into any Intel iSBC Single Board Computer equipped with an iSBX connector, providing immediate, high density storage. This arrangement frees the MULTIBUS for other traffic while the host iSBC board accesses the bubble memory.

Support circuitry provides the user with a simple interface to the bubble memory. For instance, sixteen commands are available to transfer data and to view the operational status of the iSBX 251 board. Additionally, memory reliability is increased if the automatic Error Check and Correction (ECC) feature of the support circuitry is selected.

The iSBX 251 board can be wired to transfer data in one of three modes: polled access, interrupt driven, and Direct Memory Access (DMA). The user may also select polled or interrupt driven access to the 7220-1 Status Register. Thus, the user can tailor the type of access to the individual application.



SPECIFICATIONS

Storage Capacity

- 128K Eight-Bit Bytes
- 2048 Pages
- Page Length:
 - 64 bytes with ECC
 - 68 bytes without ECC

Operational Modes

Polled, Interrupt Driven, or DMA (with Host DMA Controller)

Electrical Requirements

- D.C. power, supplied through iSBX connector:
- +5V \pm 5%, 365 mA (max.)
 - +12V \pm 5%, 400 mA (max.)

Performance

- Rotating Field Rate 50 KHZ
- Maximum Data Rate 12.5K byte/sec
- Average Access Time 48 ms

Interface Requirements

- TTL compatible
- iSBX 251 male connector plugs into 36-pin or 44-pin host female connector
- Connector located per Intel iSBX Bus Specification (order number 142686) double wide form factor

Physical Characteristics

- Width 7.24 cm (2.85 in.)
- Length 19.05 cm (7.50 in.)
- Height 2.53 cm (0.996 in.)
- Weight 362.9 gm (12.8 oz.)

Environment

- Temperature:
- 0°C to 60°C (32°F to 140°F) Operating
 - 40°C to 100°C (-40°F to 212°F) .. Non-Operating with Data Retention
- Relative Humidity:
- 0% to 95% without condensation

RELIABILITY

Intel tests each iSBX 251 board at elevated voltages and temperatures for a period proven to bring out most latent defects. This process, together with temperature cycling, is designed to remove all potential failures before the memory board reaches the customer. Because of the 100% burn-in performed on each board, the user is assured of Intel's proven quality and reliability.

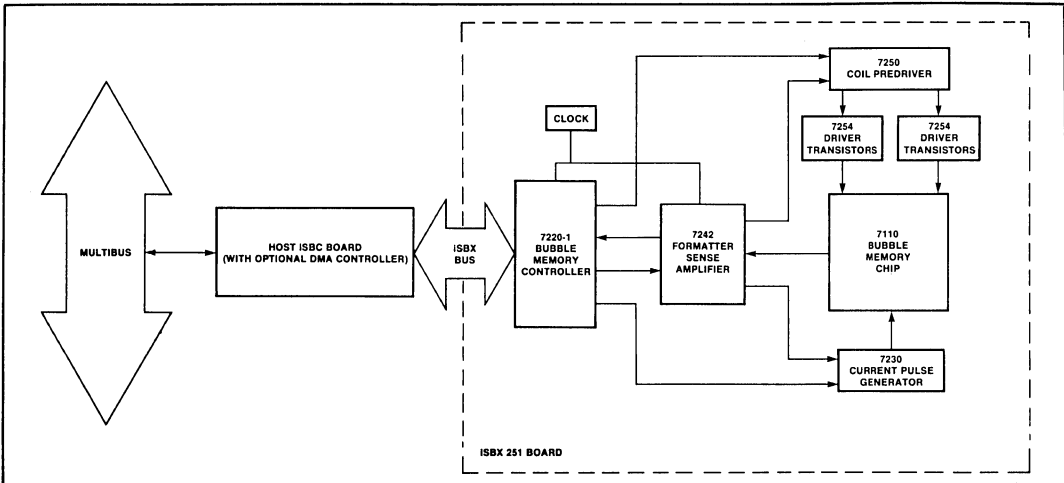


Figure 1. Block Diagram