7301 Memory System

DESCRIPTION
The 7301 Memory System is a modular, high-capacity memory package designed for mass storage of data in a variety of random-access computer applications. These units provide a completely self-contained rapid-access memory subsystem for use by system builder, computer manufacturer, and data processing user. Each 7301 includes all-silicon electronic circuitry for reading, writing, track selection, and generation of timing signals. All input and output signals interface with the computer system at integrated circuit logic levels.

The basic 7301 is designed for installation in a standard 19-inch cabinet.

RELIABILITY
The memory device is shock-mounted within a hermetically sealed enclosure which is filled with dry, inert gas. This controlled environment completely protects the unit from dust, dirt, moisture, or any other contaminating elements, and provides the hydrodynamic gas bearing for the flying heads.

HEAD-PER-TRACK ORGANIZATION
The unique non-contact head-per-track design of the Series 7301 provides for fast access—8.5 ms average access time—high device reliability, and environmental stability.

The combination read/write heads are organized in groups of 64. Each group services one disc surface. The heads are actuated into flying position pneumatically and are mechanically restrained away from the disc surface, in the non-operating condition. The heads never touch the recording surface and are basically insensitive to shock and vibration. No head adjustment or calibration is required. The head blocks are completely interchangeable.

MODULAR DESIGN
The modular system of multiple discs and heads allows the capacity of the 7301 to be tailored to individual requirements. By specifying the number of discs and heads for your application, you buy only the initial capacity and expansion capability that you need. Additional heads are easily added in the field.

APPLICATIONS
The 7301 systems are available for a variety of data organizations and interfaces. Controller logic units, the interface between the memory device and computer, can be provided per customer request. DDC provides complete technical design and applications assistance to meet your requirements.

DIGITAL DEVELOPMENT CORPORATION
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SPECIFICATIONS
- Discs: 2 max.
- Data Tracks: 256 max.
- Max. Rated Capacity: 11.52 x 10⁴ (millions of bits)
- Bits/Disc: 5.76 x 10⁴ max.
- Bits/Surface: 2.88 x 10⁴ max.
- Bits/Track: 45,000 max.
- Tracks/Surface: 64
- Speed: 3600 RPM standard
- Average Access Time: 8.5 ms
- Bit Transfer Rate: 2.7 MHz max.
- Timing Signals: 4 standard (plus spares)
- System Design Life: 10 years
- Motor Power: 115 VAC, 1Ø, 50/60 Hz
- Ambient Operating Temperature: 0° to 115°F
- Ambient Operating Humidity: 5% to 95%
- Standard Power Supply Voltages: ±18V, −12V
- Standard I.C. Logic Levels: 0V and +5V
- Over-all Height (in.): 19.25 max.
- Max. Weight (lb.): 170
- Max. Power Requirements: 95 watts

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