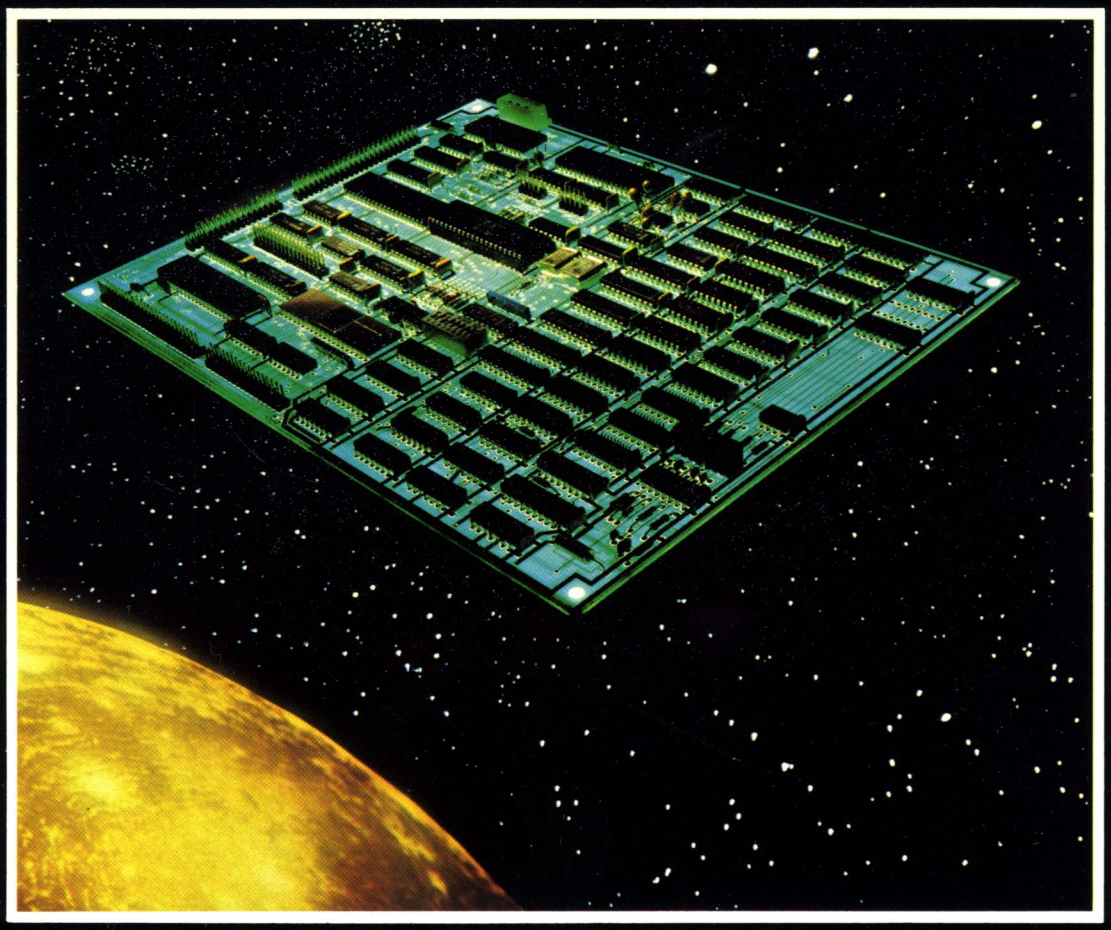
Space Age Performance

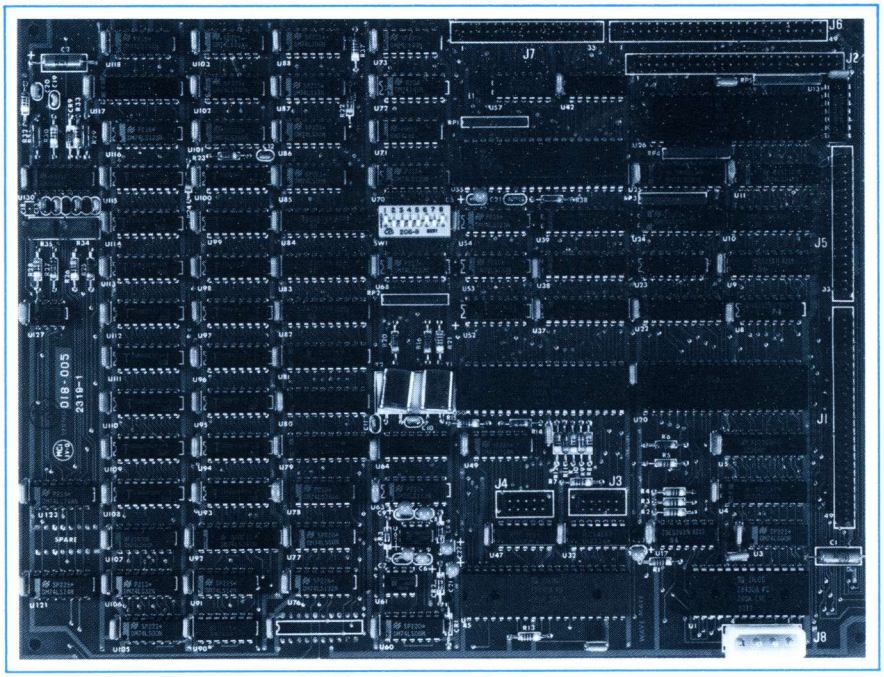


BULLET™ Single-Board Computer

Get The Best From CP/M Plus™ Wave Mate

BULLET™

A Fast, Compact Powerful and Proven Z-80A Based Microcomputer



Outstanding Features:

MEMORY
- 128K RAM standard, 256K RAM optional.
- 4K, 8K, or 16K on-board EPROM optional.
- High speed inter-bank memory move by DMA.

I/O
- DMA, multiplexed single-channel controller. Second DMA channel optional.
- Floppy disk controller for 5¼", 8", and 3½" drives with DMA.
- Up to four 5¼", four 8", and two 3½" floppy drives at the same time.
- Two RS-232-C serial ports, synchronous or asynchronous, four ports optional.
- Centronics compatible parallel printer port.
- SASI hard disk interface.
- DMA/CPU expansion bus.

SOFTWARE
- CP/M 3.0 included with every BULLET.
- Enhanced C-BIOS with multiple track read/write buffers.
- Interrupt-driven I/O.
- MP/M with up to four users optional.

SYSTEM
- Peformance rivals or exceeds 16 bit systems.
- Cost effective.
- Highest performance of any 4MHZ Z80 board.
- Hardware and software most sophisticated and efficient in the industry.
- Single board design for reliability and ease of integration.
- Single 5 volt power requirement.

A Variety of Integrated High-Performance Disk Systems:

Bullet IV

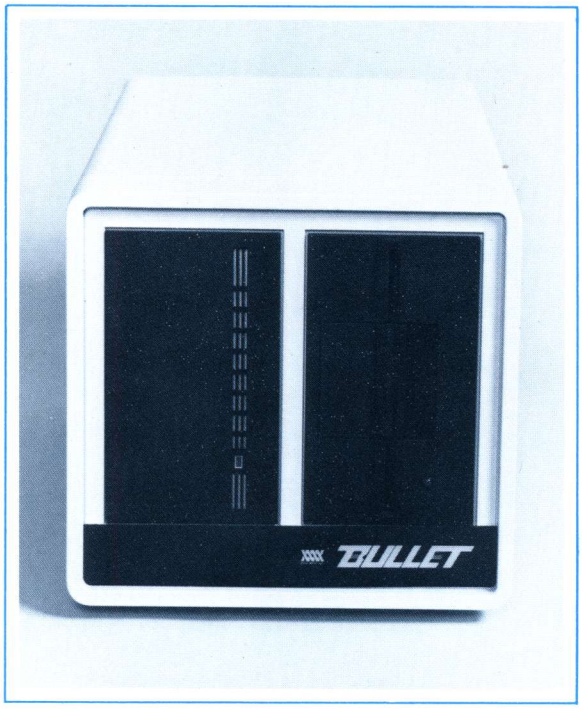
Microcomputer System. Includes BULLET-SBC (Single Board Computer), two 5¼" floppy drives with 1.6M bytes formatted data capacity, system enclosure with power supply. 115/230 VAC, 50/60 HZ.

Bullet 510 (10MB)

Hard Disk System. Includes BULLET-SBC, 10M bytes formatted hard disk drive, one 5¼" floppy drive with 800K bytes formatted data capacity, system enclosure with power supply. 115/230 VAC, 50/60 HZ.

Bullet 515 (15MB)

Hard Disk System. Includes BULLET-SBC, 15M bytes formatted hard disk drive, one 5¼" floppy drive with 800K bytes formatted data capacity, system enclosure with power supply. 115/230 VAC, 50/60 HZ.



The Design

The BULLET-SBC has been designed with the OEM/systems integrator in mind. It is compact and efficient, with low power requirement and a single supply voltage (5v @ 2a), and is easily incorporated into both existing and new equipment.

Within its architecture is a flexible DMA facility, fully interrupt-driven I/O, and a high-speed floppy disk controller. The 8-bit 4MHZ Z-80A CPU is utilized with a full complement of Zilog-compatible peripheral chips. The result is a powerful yet cost-effective design. It is the heart of this low-cost, high-performance microcomputer system. The BULLET is ideally suited for single-user CP/M and multi-user MP/M applications. The viability of this product is attested to by our dramatically increasing customer base. Thousands of Wave Mate BULLETS have been delivered and are in use throughout the world. Continuing product performance is the ultimate test of design and effectiveness.

Our Company

Wave Mate has been in business since 1971, with headquarters in Hawthorne, California. The company's business philosophy was firmly established then, and remains unchanged. We are committed to supplying our customers with the advanced designs featuring the highest-performance, lowest-cost single board microcomputers in the industry. We believe we do what we do, better than anyone else. We have a single-minded purpose—a dedication to maintaining engineering excellence, quality control, and expanding product performance. That is why we supply, on a continuing basis, the top systems integrators in the U.S. and abroad. Wave Mate assures its customers of premium products, performance, and packaging.

Specifications:

Z80A CENTRAL PROCESSING UNIT

The CPU operates at the maximum 4 Mhz clock rate with no wait states.

MEMORY

Two banks of 64K bytes of dynamic random access memory are standard. An additional two banks are optional, for a total of 256K bytes.

User added EPROM may be installed providing 4K, 8K, or 16K bytes of ROM

DMA DIRECT MEMORY ACCESS CONTROLLERS

The two DMA controllers are multiplexed to the I/O devices on the board. External support logic provides for memory-to-memory datamoves, anywhere within the 256K bytes of memory space at 1 megabyte per second transfer rate.

FDC—FLOPPY DISK CONTROLLER

The controller is compatible with the Western Digital FD 1793. External control logic provides for four 8 inch disk drives and four 5¼ inch disk drives; support for two 3½ disk drives is optional.

DART—DUAL ASYNCHRONOUS RECEIVER/TRANSMITTER

The DART provides two independent RS-232-C serial data channels. Baud rates may range from 75 to 76.8 kilobaud. The DART may be replaced by an SIO for synchronous capability on these ports.

SIO—SERIAL INPUT/OUTPUT CONTROLLER

The optional SIO provides two additional data channels with synchronous capability. Baud rates up to 800 kilobaud may be programmed.

PIO—PARALLEL INPUT/OUTPUT CONTROLLER

This device provides the eight bit parallel Centronics compatible interface and the SASI interface control functions.

POWER REQUIREMENTS

+5 volts plus or minus 0.25 volts at 2.0 amperes.

PHYSICAL

8″ by 10.7″ in size with maximum thickness of 0.625 inches.

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