



Teletек's popular FDC-II single- and double-density floppy disk controller has been recently revised to expand its versatility and implement latest state-of-the-art circuitry.

The FDC-II features include an on-board data buffer which allows operation independent of the CPU. Thus, the FDC-II does not require any particular processor speed nor continuous processor overhead when transferring data to or from the floppy disk drive. Data transfer to the system is accomplished by memory-to-memory move instructions because the FDC-II occupies a space in the microprocessor memory field. DMA is not used, avoiding the compatibility problems which often arise from DMA operations.

## FLOPPY DISK CONTROL

NECuPD765 — the NECuPD765 chip allows single- and double-density data storage on both mini- and maxi-floppy drives providing the following capabilities which minimize overhead burden on the CPU and software:

- Controls up to 4 maxi- (8") and 4 mini- (5¼") drives simultaneously under software control.
- Single- or double-density data transfer is under software control.
- Simultaneously performs seek operations on all drives connected to the system.
- IBM diskette formatting provides for ease of information exchange with IBM-compatible controllers using similar operating system software.
- Compatible with double- and single-sided drives (i.e., GSI, Siemens, Shugart, Micropolis, PerSci, Remex, Innotronics, MFE, Qume, and any other ANSI-compatible flexible disk drive).
- Automatically reads sequential sectors on a diskette.
- With appropriate software, the uPD765 can automatically read both tracks of a two-sided diskette.
- Maximum formatted data storage available is 286k bytes for a double-sided mini-diskette and 1024k bytes on a double-sided maxi-diskette.
- Under software control, record (sector) sizes of 128 (single density only), 256, 512, or 1024 bytes can be selected.
- Disk errors are detected via CRC
- Searches for particular information on a diskette.

## OPERATIONAL FEATURES

- Phase Locked Oscillator (PLO) — An on-board phase-locked oscillator is used to stabilize separated information and clock for precise data recovery.
- 1k RAM data buffer.
- An on-board 2708 EPROM provides a bootstrap program for a disk operating system. The 2708 may be easily altered by the user for his particular system. The FDC-II may also use the newer 2758 EPROMs.
- Pre-write compensation is used when writing to the disk drive for more precise data encoding.
- Does not require processor overhead when data are transferring to or from the disk drive.
- Motor control is provided for mini-drives or PerSci drives.
- Both the bootstrap EPROM and the data buffer activate the S-100 phantom line when accessed.

## INTERFACE FEATURES

- I/O and memory addressing are jumper selectable
- ANSI-standard disk drive interface. A 50-pin and a 34-pin header are provided on the board.
- A parallel port is provided for the user. This port provides 2 lines of input and 2 lines of output data.
- Any S-100 compatible CPU can be used with the FDC-II regardless of clock speed, but boot software in the on-board EPROM is compatible only with the 8080 and Z-80 families.
- CP/M® and OASIS® compatible. Other operating systems will be available. Contact factory for details.
- Hardware compatible with the Processor Technology SOL.

## TECHNICAL SPECIFICATIONS

- IEEE S-100 compatible.
- Edge connector is gold-plated
- Manual with complete information for designing compatible software is provided.
- Fully assembled and tested
- Requires +8 volts at less than 1 amp, +16 volts at 100mA, and -16 volts at 50mA.

## WARRANTY

FDC-II is warranted against defects in materials and workmanship for a period of one year from date of shipment. For the exact terms of the warranty, please consult the users' manual.

Specifications subject to change without notice

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