

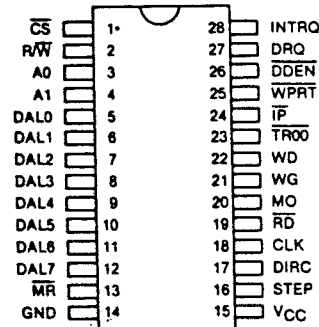
WESTERN DIGITAL

C O R P O R A T I O N

WD1770/1772 5 1/4" Floppy Disk Controller/Formatter

FEATURES

- 28 PIN DIP
- SINGLE 5V SUPPLY
- BUILT-IN DATA SEPARATOR
- BUILT-IN WRITE PRECOMPENSATION
- 5 1/4" SINGLE AND DOUBLE DENSITY
- MOTOR CONTROL
- 128, 256, 512 OR 1024 SECTOR LENGTHS
- TTL COMPATIBLE
- 8 BIT BIDIRECTIONAL DATA BUS
- TWO VERSIONS AVAILABLE
WD1770 = STANDARD 179X STEP RATES
WD1772 = FASTER STEP RATES



PIN DESIGNATION

DESCRIPTION

The WD1770 is a MOS/LSI device which performs the functions of a 5 1/4" Floppy Disk Controller/Formatter. It is similar to its predecessor, the WD179X, but also contains a digital data separator and write precompensation circuitry. The drive side of the interface needs no additional logic except for buffers/receivers. Designed for 5 1/4" single or double density operation, the device contains a programmable Motor On signal.

The WD1770 is implemented in NMOS silicon gate technology and is available in a 28 pin dual-in-line.

The WD1770 is a low cost version of the FD179X Floppy Disk Controller/Formatter. It is compatible with the 179X, but has a built-in digital data separator and write precompensation circuits. A single read line (\overline{RD} , Pin 19) is the only input required to recover

serial FM or MFM data from the disk drive. The device has been specifically designed for control of 5 1/4" floppy disk drives with data rates of 125 KBits/Sec (single density) and 250 KBits/Sec (double density). In addition, write precompensation of 125 Nsec from nominal can be enabled at any point through simple software commands. Another programmable feature, Motor On, has been incorporated to enable the spindle motor automatically prior to operating a selected drive.

Two versions of the WD1770 are available. The standard version is compatible with the 179X stepping rates, while the WD1772 offers stepping rates of 2, 3, 5 and 6 msec.

The processor interface consists of an 8-bit bidirectional bus for transfer of status, data, and commands. All host communication with the drive occurs through these data lines. They are capable of driving one standard TTL load or three "LS" loads.

June, 1983

Copy of page one of the technical data manual for the floppy disk controller (WD1770) which is to be used in the viper extension. This formatter will be introduced to the computer industry at the COMDEX '83 Trade Show at the Los Vegas Convention Center, November 28-December 2.