General Description

The HM83755 incorporates two full function UARTs with one infrared supported, one multi-mode parallel port, one floppy disk controller (FDC) , and one game port controller with address de coder circuit. Each functional element can be configured by hardware jumpers or software registers individually.
The HM83755 is an enhanced product from the HM83741. The feature includes: support up to 2.88M(360k, 720k, 1.2M, 1.44M, and 2.88M) floppy disk drive, two enhanced high speed UARTs support up to 28.8k high speed MODEM, one infrared interface port which performs IrDA or ASKIR protocol by software configuration setting, one multi-mode parallel port which includes Enhanced Parallel Port(EPP) & Extended Capability Port (ECP) compatible with IEEE 1284 Specification, one game port only with control circuit . The power down control also can be programmed by software through configuration registers.
Configuration setting for HM83755 can be made by software to disable, enable, or power down each element(s). Configuration setting made by hardware input jumpers is the same as HM83741. Usage of 1488 and 1489 as Line Transmitters/Receivers will provide total solution of all I/O applications.

Feature

- Fully compatible with IBM PC/AT.
- 2.88MB Floppy Disk Controller
  - Supports up to two disk drives all compatible with 360K, 720K, 1.2M. 1.44M, or 2.88M disk drives.
  - Software and register compatible to the 82077AA.
  - Support vertical recording format.
  - Detects all overrun and underrun conditions.
  - 48 mA drivers and schmitt trigger inputs.
  - DMA enable logic.
  - Data rate and drive control registers.
  - Non-burst mode DMA option.
  - FDC primary/secondary address selection.
  - 16 byte data FIFOs.
- Enhanced Data Separator
  - No filter components required.
  - 250 Kb/s, 300 Kb/s, 500 Kb/s, or 1 Mb/s data rate.
  - Programmable precompensation modes.
  - Built-in oscillator for low cost crystal connection.
- Two Serial Ports
  - Two enhanced high speed UARTs.
  - Programmable Baud rate generator(up to 115k baud.)
- Infrared Interface Port
  - IrDA(HPSIR) or Amplitude Shift Keyed IR(ASKIR) supported.
- Multi-Mode Parallel Port
  - Standard Parallel Port mode.
  - IBM PS/2 compatible Bidirection Parallel Port.
  - Enhanced Parallel Port (EPP) compatible with IEEE 1284 specifica tion.
  - Microsoft and Hewlett-Packard Extended Capability Port (ECP) compatible with IEEE 1284 specification.
- Configuration is made by hardware jumpers or software registers.
- Provides power down control for low power applications.
- Single 5-volt power supplied CMOS device.
- 100-pin plastic flat QFP package.