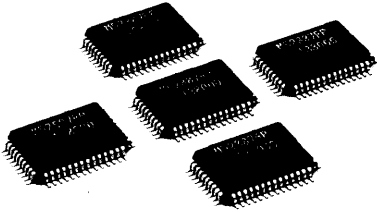


LOW CONSUMPTION POWER TYPE ALLOWS SPACE SAVING OF MOUNTING AREA

M52887FP



DESCRIPTION

Demand has increased greatly for large-capacity, compact and high-speed hard disk drives (HDD) with low power consumption. Compact size and low power consumption are required in particular for HDDs installed in notebook-type personal computers. The pulse peak detector, M52887FP, has been developed with these considerations especially in mind. The compact packaging and reduced number of externally connected components in the M52887FP enables the size of the mounting area to be reduced. The ability to operate at 5V in power save and standby contributes to lowering power consumption. The M52887FP has an AGC amplifier, waveform equalizing circuit,

differentiator, zero-cross comparator, read-data detector circuit and a servo-signal detector circuit to determine the position of the magnetic head.

FEATURES

- Single 5V Power Supply Operation
- Power Save Function
- Power consumption in standby mode is reduced to less than 5mW.
- Standby Function
- In standby mode, the read-data detector circuit is suspended reducing power consumption by approximately 60 mW compared with power consumed in normal operating mode (power consumption of 325mW typ.).
- The recovery time from the standby mode to the operating mode is within 5 μ s.
- Applies to transfer rates up to 18Mbps (1-7RLL)
- Built-in waveform equalizing circuit
- The waveform equalizing circuit is built in and the waveform equalizing capacity can be controlled by the TLL signal.
- The detector circuit of the sector servo-signal and four output circuits are built in.
- Built-in capacitor for Hold

- Built-in capacitor for the sample and hold circuit of the servo signal allows the number of externally connected components to be reduced.
- Internal stabilized power supply is used.
- The stabilized power supply inside the IC is used as the power supply for major circuits of the analog and digital sections to reduce the influence of external noise.
- Uses compact plastic packaging
- Use of a 0.65mm pitch 48-pin QFP package allows the mounting area to be reduced in size.

APPLICATIONS

- Compact HDD

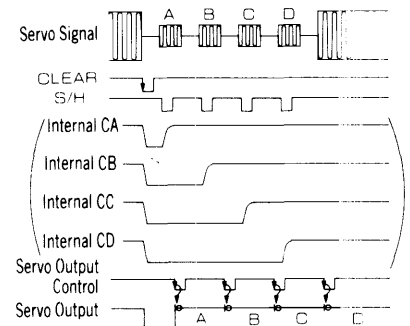


Fig. 2 Timing Diagram of the Sample & Hold Functions of the Servo Signal

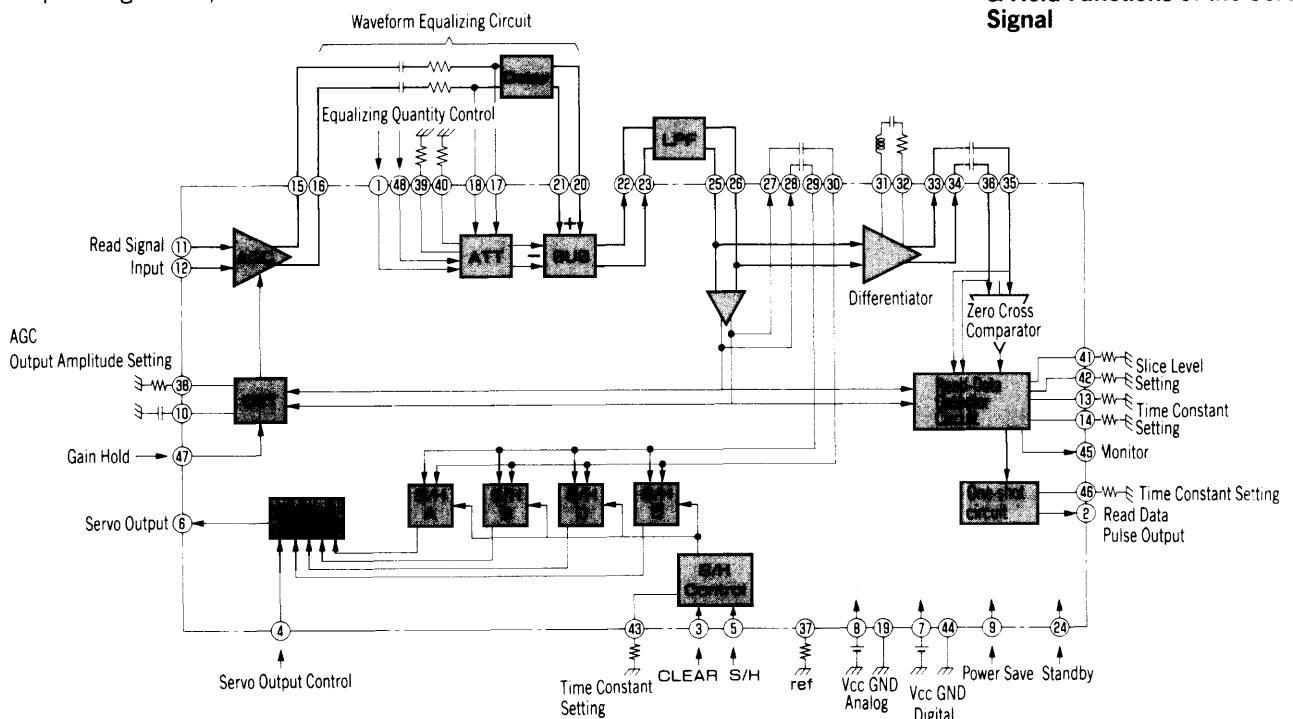


Fig. 1 Block Diagram of M52887FP