

January 1997

DESCRIPTION

The SSI 33P3725 is a member of the Silicon Systems DV25[™] chip set integrating the major portions of the electronics required to build a DVD-ROM drive. Operating at five volts, the SSI 33P3725 is a high performance BiCMOS single chip that contains servo functions, RF amplifier, AGC, programmable equalizer, automatic laser power control, data slicer, synchronization, and servo data conversion for a DVD drive system. Being a member of the Silicon Systems DV25[™] chip set, the SSI 33P3725 is optimized for use with the SSI 33H3825 Servo Processor and SSI 33C3925 Data Path Controller. The DV25[™] chip set provides the highest level of integration and performance supporting both DVD-ROM and DVD-player drive implementations. Programmable functions of the SSI 33P3725 are controlled through a bi-directional serial port and internal registers allowing configuration for both CD and DVD modes. The SSI 33P3725 is available in a 100-Lead TQFP package.

FEATURES

CHANNEL

- Programmable attenuator and equalizer filters for both CD and DVD modes
- Temperature compensated AGC
- No external filter components required
- Wide ranging PLL capture range applicable to both CAV and CLV modes
- Data slicer and synchronizer
- Single and dual bit channel code output

SERVO

- Servo algebra for focus and tracking for both CD and DVD modes
- Pull-in and mirror signals outputs
- Differential phase tracking error detection circuit (DPD)
- Push pull and 3-beam tracking error detection circuits

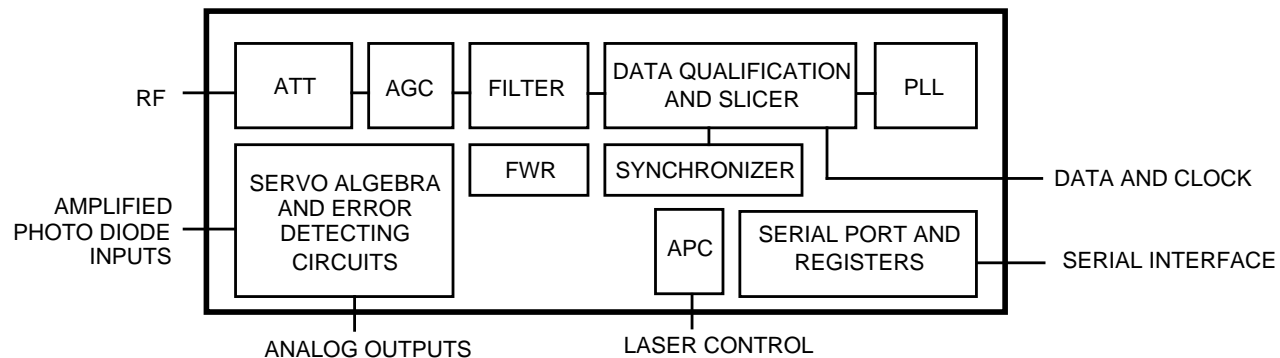
GENERAL

- Automatic laser power control
- Power management modes
- Serial port command interface compatible with popular microcontrollers
- DV25[™] chip set member

SSI 33P3725

DVD Analog Front End with Data Slicer and Synchronizer

BLOCK DIAGRAM



Prototype: Indicates a product still in the design cycle, and any specifications are based on design goals only. Do not use for final design.

Silicon Systems reserves the right to make changes in specifications at any time without notice. Accordingly, the reader is cautioned to verify that the data sheet is current before placing orders.

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