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# TLS2234
## Servo-Combination Predriver

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## DESCRIPTION

The TLS2234 (Figure 1-1) is a servo-combination predriver designed for use in hard disk drive applications. The predriver, when used in combination with the TPIC150x, can drive a voice-coil motor (VCM) and a spindle motor.

## FEATURES

**VOICE-COIL MOTOR (VCM) PREDRIVER**

- **Linear input control**
- **Transconductance amplifier with class AB output (when used with TPIC150x drivers)**
- **Summing amplifier**
- **Current-sense amplifier**
- **Retract function on power loss or on software command**
- **External set for retract voltage**

**SPINDLE MOTOR PREDRIVER**

- **Pulse-width modulated (PWM) start and PWM current limit**
- **Advance terminal signals commutation timing to on-chip sequencer during start mode**
- **Current-sense comparator**
- **Low-noise phase-locked loop performs commutation timing during run mode**
- **PWM or linear run**
- **Low-side driver transconductance amplifier for linear run mode**
- **Dynamic brake**
- **Power-down brake after delay**
- **Soft switching or limited dV/dT reduces acoustic noise in linear current control mode**
- **KELVIN_SENSE input to reduce current-sense errors induced by ground level variances**

**SUPPORT FUNCTIONS**

- **Voltage monitor (based on 5 V and 12 V supplies)**
- **Charge pump (24 V) for driving N-channel DMOS H-bridge drivers**