PT16589
1/4 and 1/3-Duty LCD Display Driver with Key Input Function

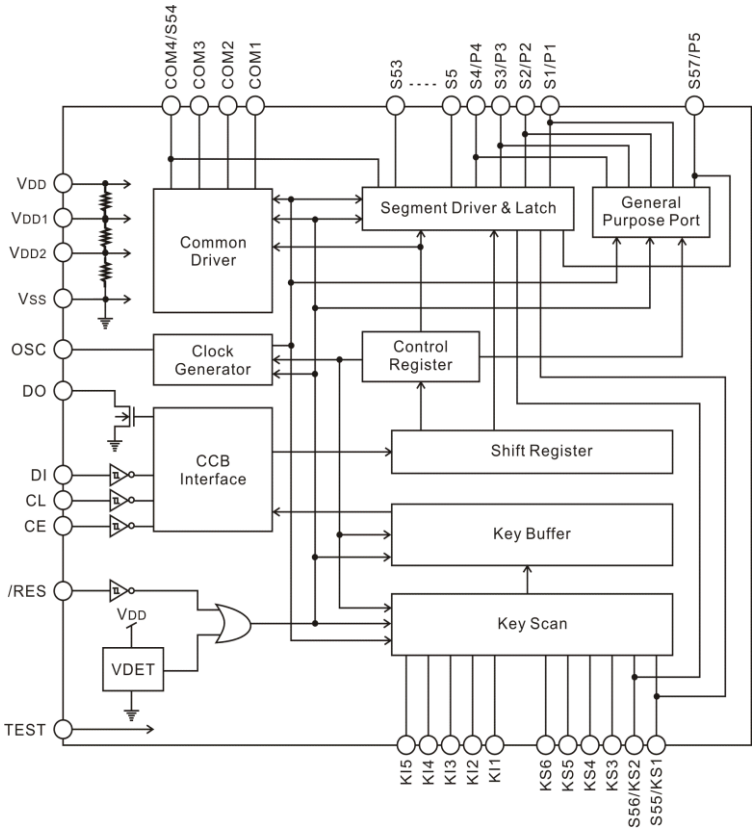
DESCRIPTION

The PT16589 is 1/4 duty and 1/3 duty LCD display driver that can directly drive up to 224 segments and can control up to 5 general-purpose output ports. This product also incorporates a key scan circuit that accepts input from up to 30 keys to reduce printed circuit board wiring.

APPLICATION

- Electronic Equipment with LCD Display

FEATURES

- Key input function for up to 30 keys (A key scan is performed only when a key is pressed.)
- 1/4 duty 1/3 bias and 1/3 duty 1/3 bias drive schemes can be controlled from serial data.
- Capable of driving up to 224 segments using 1/4 duty and up to 171 segments using 1/3 duty.
- Switching between key scan output and segment output can be controlled from serial data.
- The key scan operation enabled/disabled state can be controlled from serial data.
- Switching between segment output port and general-purpose output port can be controlled from serial data.
- Switching between general-purpose output port, clock output port, and segment output port can be controlled from serial data. (Up to 5 general-purpose output ports and up to one clock output port)
- Serial data I/O supports CCB format communication with the system controller. (Support 3.3V and 5V operation)
- Sleep mode and all segments off functions that are controlled from serial data.
- The frame frequency of the common and segment output waveforms can be controlled from serial data.
- Switching between RC oscillator operating mode and external clock operating mode can be controlled from serial data.
- Direct display of display data without the use of a decoder provides high generality.
- Provision of an on-chip voltage-detection type reset circuit prevents incorrect displays.
- /RES pin provided for forcibly initializing the IC internal circuits.

BLOCK DIAGRAM