

## DESCRIPTION

The PT16820 is a single-chip CMOS OLED driver/controller for organic light emitting diode dot passive matrix display systems. It consists of 256 segments and 136 commons.

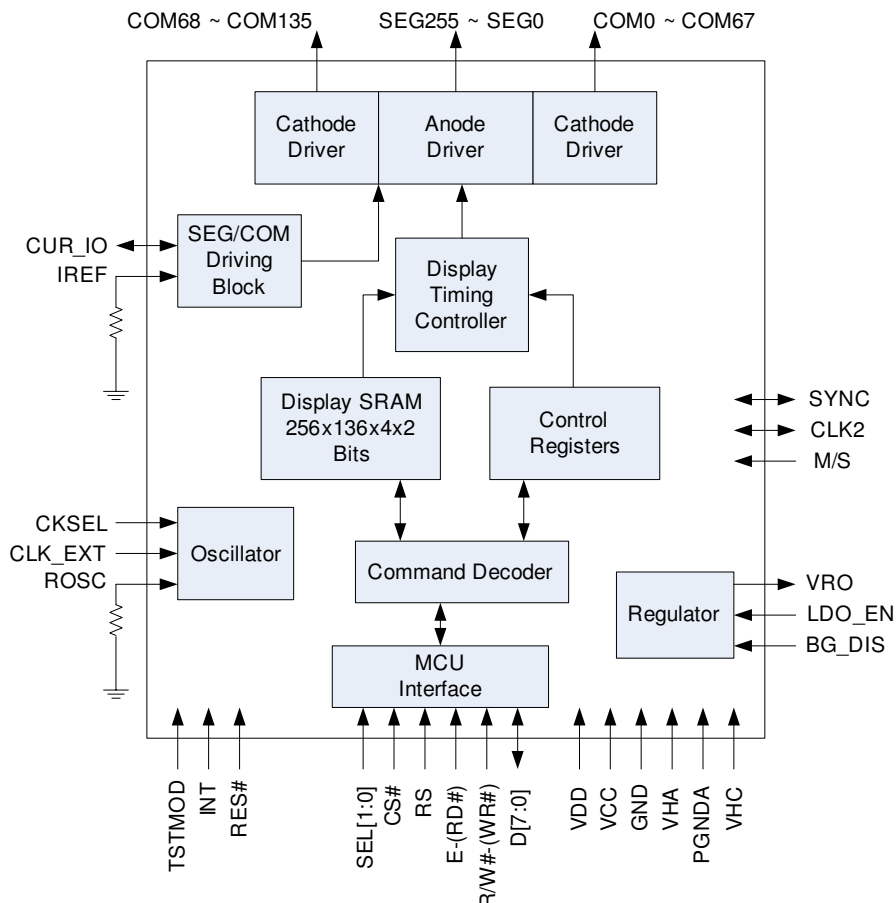
The PT16820 communicates with the host microcontroller via an 8080/6800-series compatible parallel interface or a serial interface. The PT16820 has a set of control registers that can be addressed by the interface.

## FEATURES

- Supports up to 256x136 dot matrix panel
- Power supply:
  - Low voltage power ( $V_{DD}$ ): 3.0 ~ 5.5V
  - Core Logic power ( $V_{CC}$ ): 1.8V
  - Segment power ( $V_{HA}$ ): 8.0V ~ 26V
  - Common power ( $V_{HC}$ ): 18V (Max.)

- Segment source current: 600 $\mu$ A (max.)
- Common sink current: 160mA
- 16/4/2 gray scale levels
- Gray Scale lookup table
- Embedded 256x136x4x2 bits SRAM
- 64-step output current adjustment
- Current reference controlled by external resistor
- Programmable frame rate
- Selectable MCU interface
  - 8-bit 8080/6800-series parallel interface
  - Serial interface
- On-chip oscillator

## BLOCK DIAGRAM







## 2. ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT16820	Bare Chip	PT16820-G

## 3. PIN CONFIGURATION

