DESCRIPTION

PT16528 is a LCD segment driver with 4 backplane and 18 segment-driver outputs, with either an I²C interface. It comprises an internal oscillator, bias generation, instruction decoding, and display controller.

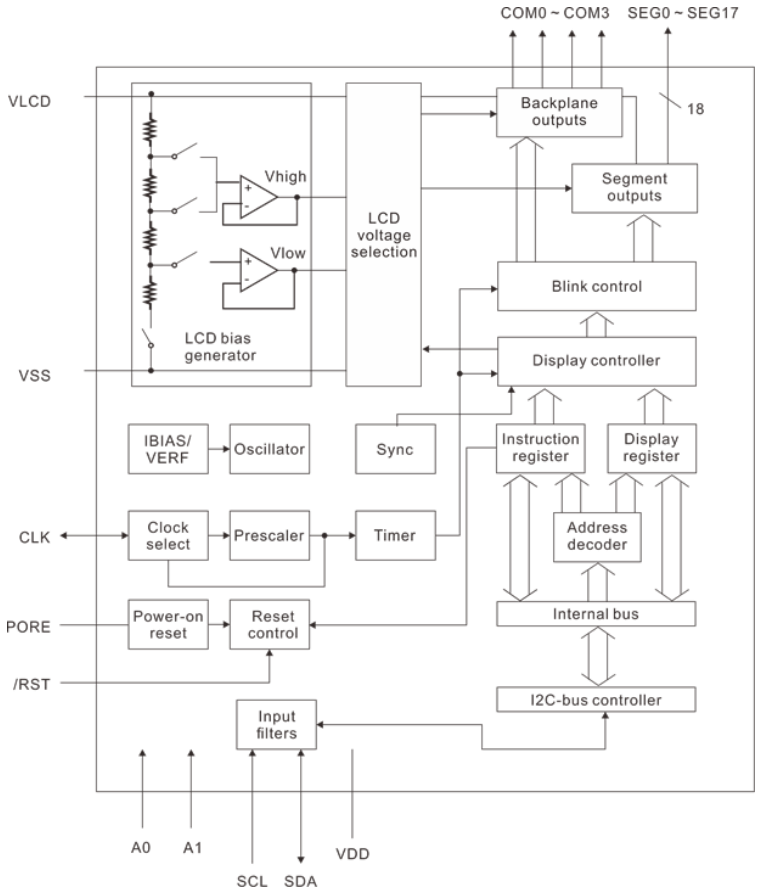
FEATURES

- AEC-Q100 grade 1 compliant for automotive applications
- Single chip LCD controller and driver
- Selectable backplane drive configuration: static, 2, 3, or 4 backplane multiplexing
- Selectable display bias configuration: static, 1/2, or 1/3
- Internal LCD bias generation with buffers
- 18 Segment drives:
  - Up to 9 “7-segment” numeric characters
  - Up to 4 “14-segment” alphanumeric characters
  - Any graphics of up to 72 segments/elements
- Auto-incrementing display data and instruction loading
- Versatile blinking modes
- Independent supplies of VLCD and VDD
- Power supply ranges:
  - 3.3 V to 6.0 V for VLCD
  - 2.7 V to 6.0 V for VDD
- 400 KHz I²C-bus interface
- Internally generated or externally supplied clock signal

APPLICATIONS

- Small displays integrated
  - in a car instrument cluster
  - in a control knob

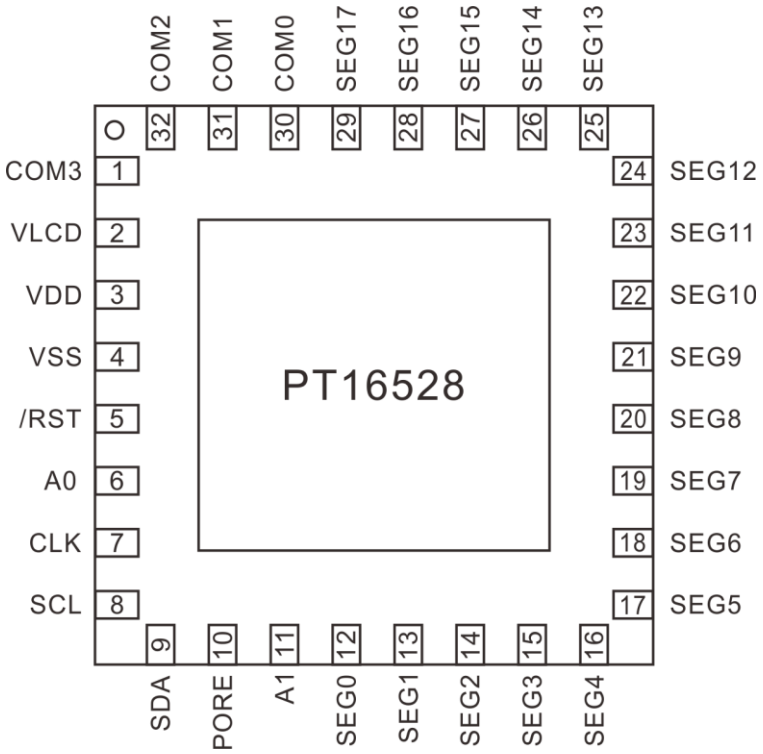
BLOCK DIAGRAM



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT16528	32-Pin, QFN	PT16528

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
COM3	O	LCD backplane output	1
VLCD	-	LCD supply voltage	2
VDD	-	Supply voltage	3
VSS	-	Ground supply	4
/RST	I	Reset input, active LOW	5
A0	I	Hardware device address selection - Connect to VSS = logic 0 - Connect to VDD = logic 1	6
CLK	I/O	Internal oscillator output external oscillator input - Must be left open if unused	7
SCL	I	Serial clock input	8
SDA	I/O	Serial data I/O	9
PORE	I	Power-on reset (POR) enable - Correct to VDD for enabling POR - Correct to VSS for disabling POR	10
A1	I	Hardware device address selection: - Connect to VSS = logic 0 - Connect to VDD = logic 1	11
SEG0 ~ SEG17	O	LCD segment outputs	12 ~ 29
COM0 ~ COM2	O	LCD backplane outputs	30 ~ 32
Heatsink	-	Connected to VSS is recommended.	back-side

IMPORTANT NOTICE

Princeton Technology Corporation (PTC) reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and to discontinue any product without notice at any time.
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