

FEATURES

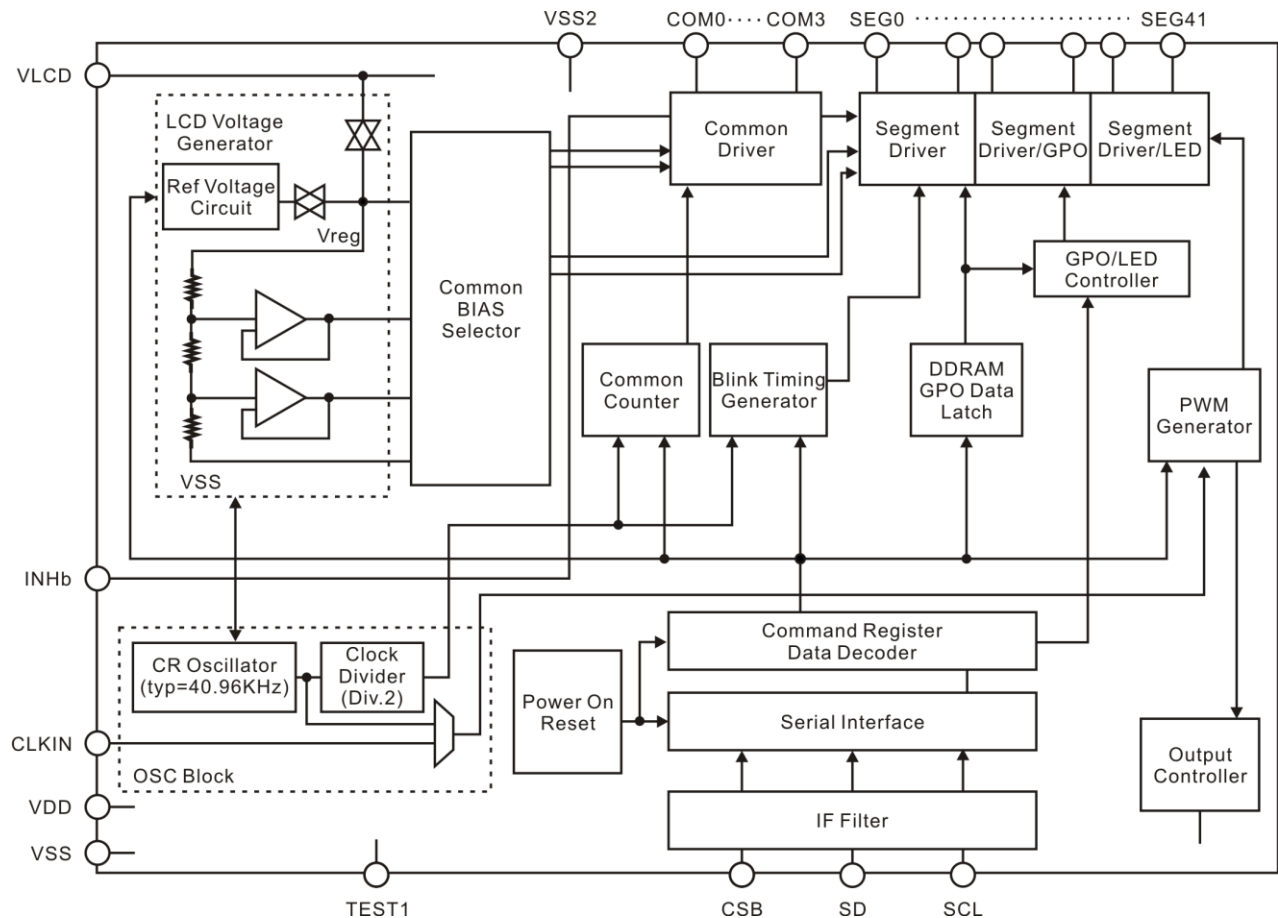
- LCD drive output:
Common output: 4; Segment output: 42
Integrated Display data RAM (DDRAM): 42x4bit
- Integrated 3ch LED driver circuit
- 3-wire Serial interface (SD, SCL, CSB)
- Segment/LED (Max. 3 ports) output mode selectable
- Segment/GPO (Max. 27 ports) output mode selectable
- Support PWM generation from ext. or internal clock (Resolution: 8-bit mode/12-bit mode selectable)
- Integrated Oscillator circuit
- Integrated LCD Voltage generator circuit
- Support: 1/3 Bias, 1/3 or 1/4 Duty
- Support: 1/1 Bias, 1/1Duty (Static Driving)
- Bias: Static, 1/3
- Integrated regulator for LCD driver: 3.2, 3.3, 3.4, 4.4, 4.5, 4.6, 5.0V selectable

- Integrated buffer amp
- Support separate power supply for Logic (VDD) and LCD (VLCD)
- Low power consumption
- Support standby mode
- Integrated Power-On-Reset circuit (POR)
- No external components
- Support Blink function (Blink frequency 1.6, 2.0, 2.6, 4.0Hz selectable)
- Operating power supply: 1.8~3.6V
- LCD drive power supply: 3.3~5.5V

APPLICATIONS

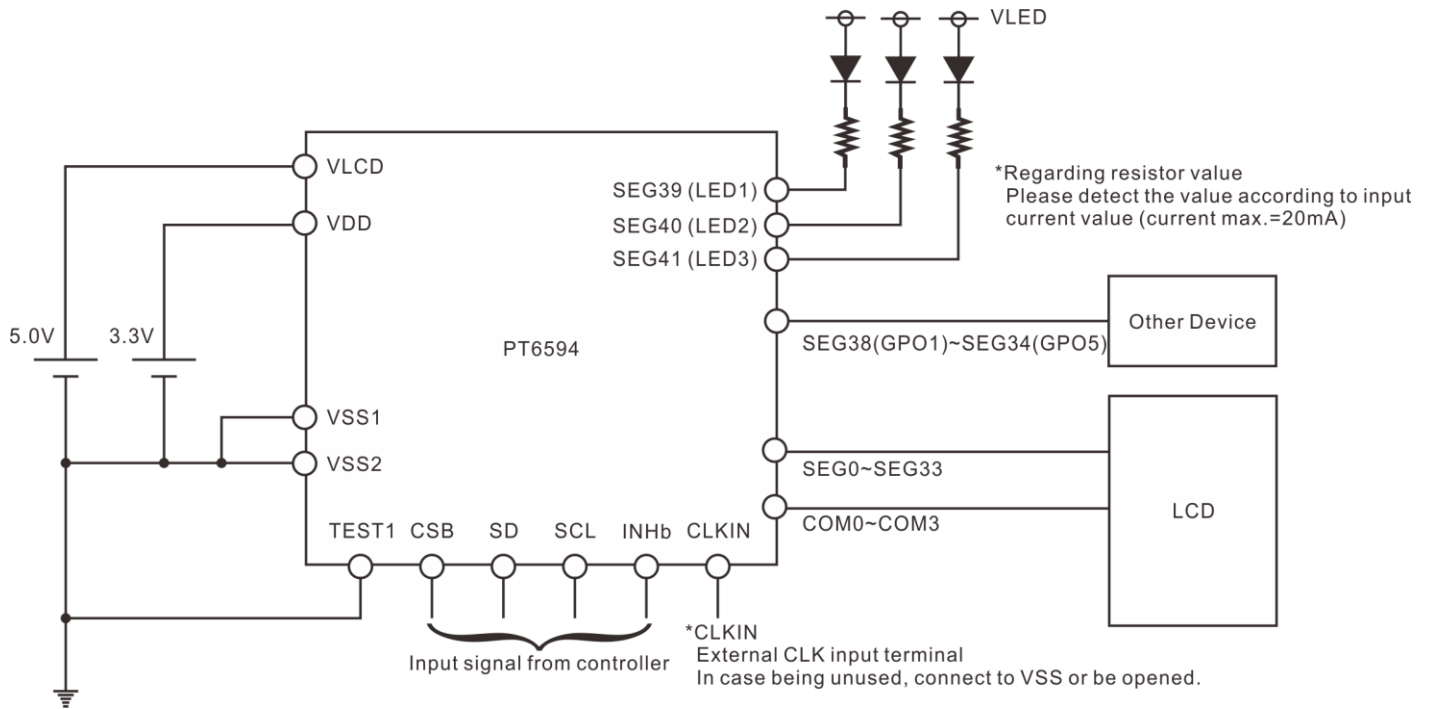
- Telephone, FAX, Portable equipment (POS, ECR, PDA etc.)
- DSC, DVC, Car audio, Home electrical appliance, Meter equipment etc.

BLOCK DIAGRAM

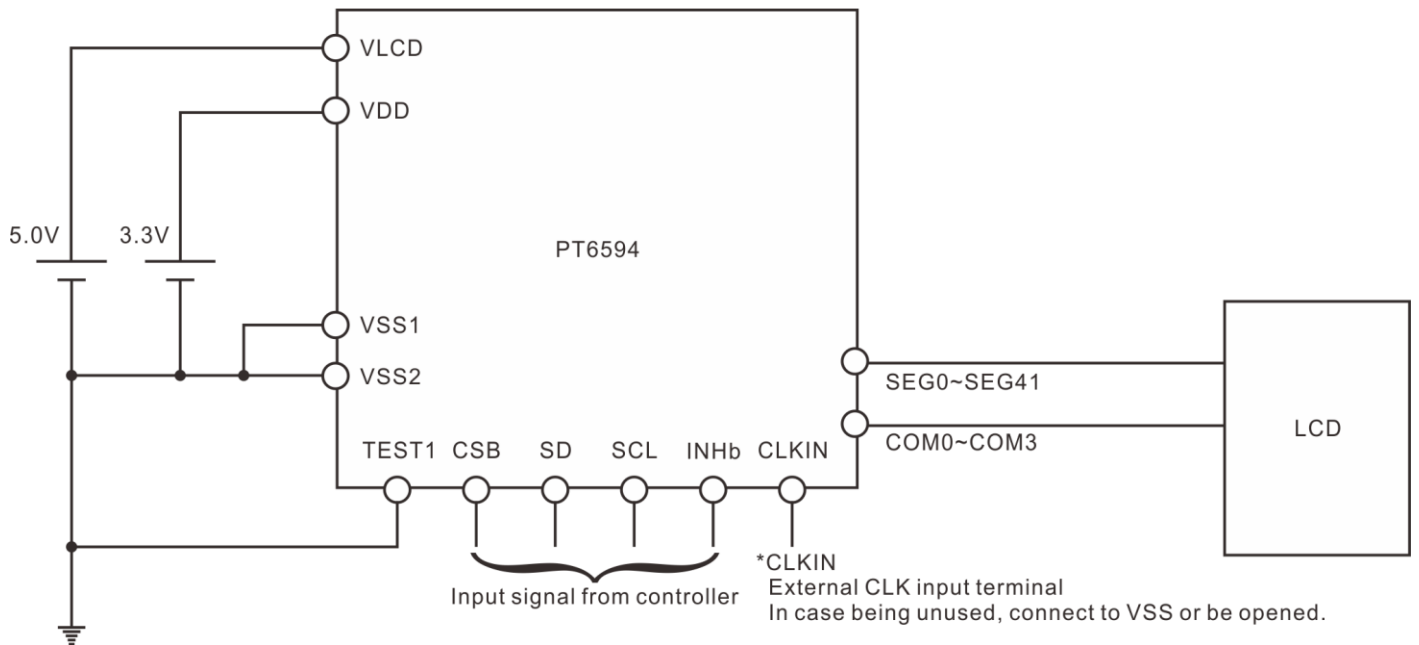


APPLICATION CIRCUIT

LED/GPO USING CASE



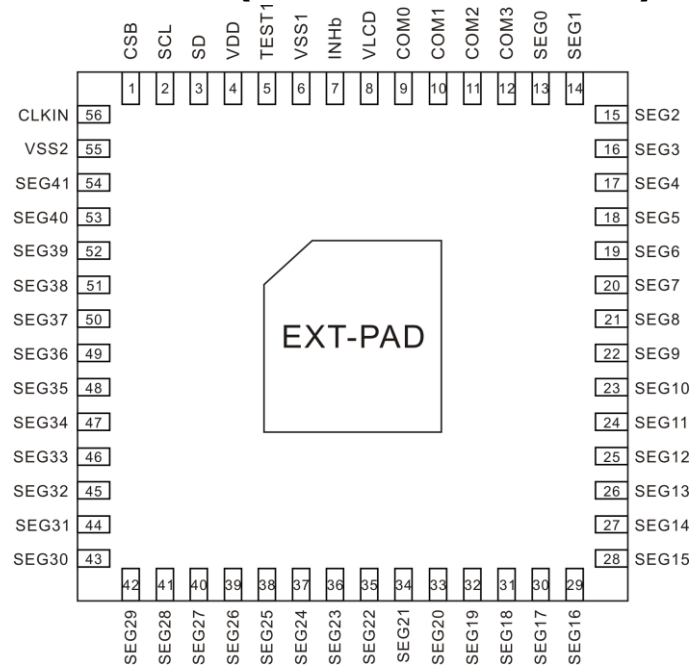
SEG OUTPUT ONLY CASE



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT6594	56-Pin, QFN	PT6594

PIN CONFIGURATION (BOTTOM VIEW)



PIN DESCRIPTION

Pin Name	I/O	Unused case	Description	Pin No.
CSB	I	-	Chip select: "L" active	1
SCL	I	-	Serial data transfer clock	2
SD	I	-	Input serial data	3
VDD	-	-	Power supply for LOGIC	4
TEST1	I	-	Test terminal (Please connect VSS terminal)	5
VSS1	-	GND	GND	6
INHb	I	VDD	Display turning on/off select terminal H: turning on display, L: turning off display INHb="L": All SEG/COM terminal: output VSS level GPO terminal: output VSS level LED drive terminal: output Hi-Z	7
VLCD	-	-	Power supply for LCD	8
COM0~COM3	O	OPEN	COMMON output for LCD	9~12
SEG0~SEG11	O	OPEN	SEGMENT output for LCD	13~24
SEG12~SEG38	O	OPEN	SEGMENT output for LCD/GPO	25~51
SEG39~SEG41	O	OPEN	SEGMENT output for LCD/LED driver	52~54
VSS2	-	GND	GND(for SEG39~41/LED driver)	55
CLKIN	I	OPEN/ VSS	External clock input terminal (for display/PWM using selectable) The internal pull down resistor is activated at internal clock mode	56
EXT-PAD	-	VSS	Substrate	-

IMPORTANT NOTICE

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