

## 8 Channel Voltage Level Shifters for TFT LCD

### Features

- 0V to 6V Input Voltage Range
- -10V to +35V Output Voltage Range
- 150mA Continuous Output Current (per channel)
- 500mA Peak Output Current (per channel)
- Rise Time and Fall Time 12ns
- Propagation Delay 25ns
- 100kHz Input Frequency
- Ultra Low Quiescent Current
- TSSOP-20 & TQFN4X4-20 Package Available

### Applications

- TFT-LCD panels

### General Description

The G1581 consists of eight level shifters target toward the needs of thin film transistor liquid crystal display (TFT LCD). The embedded level shifters can level shift digital input signals to the output voltage levels nearly equal to the supply voltages. It is capable of +35V to -10V output voltage swing. The G1581 has two positive power supplies VGH1 and VGH2, and one negative power supply VGL. VGH1 and VGL are the power supplies of the outputs 1 to 6. VGH2 and VGL are the power supplies of the outputs 7 and 8. This configuration enables the outputs 1 to 6 to provide slicing to the row drivers to reduce flicker, and the outputs 7 and 8 to control possible supply lines. VGH2 should remain constant and it needs to be greater than or equal to VGH1 at all times.

The G1581 is available in the TSSOP-20 & TQFN4X4-20 package.

### Ordering Information

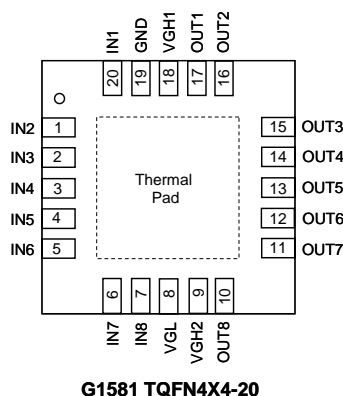
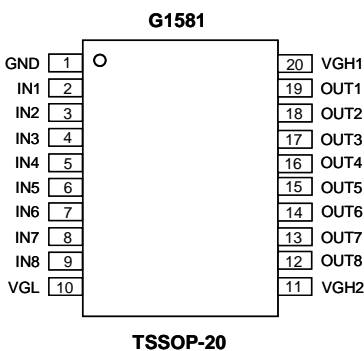
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G1581D51U	G1581	-40°C to 85°C	TSSOP-20
G1581R91U	1581	-40°C to 85°C	TQFN4X4-20

Note :D5 : TSSOP-20    R9: TQFN4X4-20

1: Bonding Code

U: Tape & Reel

### Pin Configuration



Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

### Typical Application Circuit

(SSOP/TQFN Pin No.)

