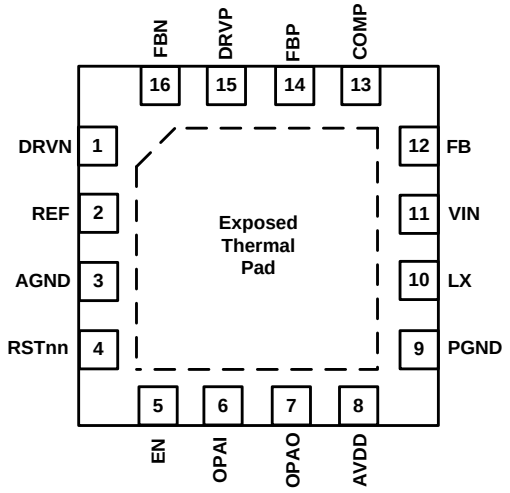
Multi-Channel TFT LCD Supply

FEATURES

- 2.5V to 5.5V input supply
- Active-high Enable Control
- Current-mode boost regulator
  - 1.2MHz switching frequency
  - Integrated 20V/1.8A 700mΩ FET
  - Fast transient response to pulsed load
  - High efficiency up to 90%
  - Adjustable high-accuracy output voltage (±1%)
- VGH positive charge pump
- VGL negative charge pump
- Integrated unity-gain VCOM buffer
  - ±150mA output current limit
  - 12V/us slew rate
  - 12MHz Bandwidth
- Low-voltage detection circuit
- Soft-start and timed delay fault latch for all outputs
- Thermal shutdown
- Thin 3x3 mm 16-lead WQFN package

QFN-16 Pin Configuration (Top View)



APPLICATIONS

- TFT LCD for Notebooks
- Tablet Personal Computer Display
- Car Navigation Display
- Portable equipment

DESCRIPTION

The ANX6623 is an integrated power supply solution optimized for small to medium size thin-film transistor (TFT) liquid crystal displays (LCD's).

The boost converter operates at a fixed frequency of 1.2MHz. The integrated N-channel FET has a current limit of 1.8A.

The positive and negative charge pumps provide regulated TFT LCD gate-on and gate-off supplies. Both outputs can be adjusted by external resistive voltage dividers.

The integrated operational amplifier is typically used for LCD VCOM driving; the output can sink or source up to 150mA short-circuit current.

A built-in voltage detector generates a reset signal when the input voltage drops below 2.6V. The reset signal is active low and has a 123ms blanking time during power-on.

The ANX6623 is available in a thin 16-pin 3x3 mm WQFN green package.

Ordering Information

Part Number	Package
ANX6623AAQ	WQFN-16L, 3x3