

Programmable 8 + 1 Channel Voltage Buffers with 2 Bank Memory for TFT LCD

Features

- Supply Operation Range : 7V to 20V
- 8+1 Channels :
 - 8 Channel Rail-to-Rail Programmable Gamma Buffers:
 - ♦ 10 Bits Resolution for Each Channel
 - ♦ 25mA Output Current for Each Channel
 - ♦ BK_SEL for Switching Stored Data Sets
 - 1 Channel Rail-to-Rail VCOM Buffer:
 - ♦ 7 Bits Adjustable Output
 - ♦ ±100mA Output Current
 - ♦ ±260mA Output Short-Circuit Current
 - ♦ 20V/μs Slew Rate
- 2-Wire I²C Slave Mode Interface
- Using One Control Pin Enable to Store Data into Non-Volatile Memory (NVM)
- Non-Volatile Memory (NVM) Store Setting (at Least 100 Re-Write Times)
- QFN4X4-24 Package

Applications

- TFT-LCD Monitors
- LCD Televisions

General Description

The G1630 is 8+1 channel digital programmed voltage reference buffer suitable for TFT-LCD application. It consists of 8 channels buffered voltage generator for gamma curve adjustment and 1 greater channel for VCOM reference voltage compensation. Each gamma and VCOM channel has its own 10bit digital-to-analog converter, and the digital data is programmed through I²C interface then store in the integrated NVM. The NVM allows two sets of gamma and VCOM data to be stored. The data sets can be dynamic switched between two register banks obtains rapid changes on gamma curve. All of the channels are capable of driving heavy capacitive loads and offering large current sufficiently. (VCOM: 100mA; Gamma: 25mA)

The G1630 is available in the QFN4X4-24 package.

Ordering Information

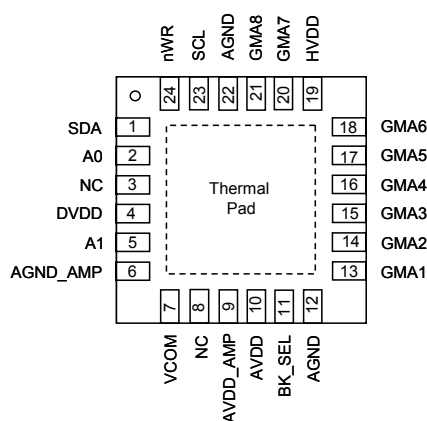
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green/Halogen-Free)
G1630Q51U	1630	-40°C to 85°C	QFN4X4-24

Note: Q5:QFN4X4-24

1: Bonding Code

U: Tape & Reel

Pin Configuration



G1630 QFN4X4-24

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

Typical Application Circuit

