

Programmable 12+1 Channel Voltage Buffers with NVM for TFT LCD

Features

- Supply Operation Range : 7V to 20V
- 12+1 Channels :
 - 12 Channel Rail-to-Rail Programmable Gamma Buffers
 - ◆ 10 bits Resolution for each Channel
 - ◆ 25mA Output Current for each Channel
 - 1 Channel Rail-to-Rail Vcom Buffer:
 - ◆ 10 Bits Adjustable Output
 - ◆ $\pm 100\text{mA}$ Output Current
 - ◆ $\pm 300\text{mA}$ Output Short-Circuit Current
 - ◆ $50\text{V}/\mu\text{s}$ Slew Rate
 - ◆ Programmable VCOM Limits
- 2 Banks Registers Using BKSEL to Select which Bank Data Output
- 2-Wire I²C Slave Mode Interface
- Non-Volatile Memory (NVM) Store Setting (at Least 100 Re-Write Times)
- QFN4X4-24 Package

Applications

- TFT-LCD Monitors
- LCD Televisions

General Description

The G1603 consists of 12+1 channel buffers target toward the needs of thin film transistor liquid crystal display (TFT LCD). This device incorporates one Vcom buffer and 12 gamma buffers, and is programmed through I²C interface. It contains two register banks which can store two different sets of gamma and VCOM values. Each buffer is capable of driving heavy capacitive loads and offering large current loading (Vcom: 100mA, Gammas: 25mA).

The G1603 is available in the QFN4X4-24 package.

Ordering Information

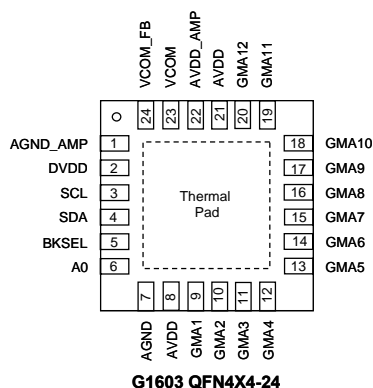
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G1603Q51U	1603	-40°C to 85°C	QFN4X4-24

Note: Q5:QFN4X4-24

1: Bonding Code

U: Tape & Reel

Pin Configuration



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

Typical Application Circuit

