



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## ISL24863A

# 15-Channel I<sup>2</sup>C Programmable TFT-LCD Reference Voltage Generator with Dual-Bank, DVR V<sub>COM</sub>, Integrated EEPROM, and Ultra-low Power Operation

## Key Features

- 15-Channel Reference Voltage Outputs, I<sup>2</sup>C Programmable
- 14-Channel Gamma References, 10-bit Resolution, with Buffered Dual-Bank Outputs
- 1-Channel V<sub>COM</sub> Calibrator (“DVR”), 8-bit Current-Sink DAC
- High Output Current V<sub>COM</sub> Amplifier
- Fast Output Bank Switching
- Dual Bank Gamma
- Ultra-low Power Operation, Ideal for Tablet and Mobile TFT-LCD Applications:
  - Quiescent Power 13mW @ 8V A<sub>VDD</sub>
- EEPROM Endurance: 10,000 Write Cycles
- Read/Write Capable Over 2.25V to 3.6V D<sub>VDD</sub> Range
- 6.3V to 19V Analog Operating Supply Range
- 2.25V to 3.6V Digital Operating Supply Range
- 32-LD 5x5mm TQFN Package
- Pb-free (RoHS Compliant)

## Description

The ISL24863A is a 15-channel I<sup>2</sup>C programmable reference voltage generator for TFT-LCDs featuring ultra-low power operation. It features 14 general purpose 10-bit DACs with buffered dual bank outputs, which can be used to set the column driver reference voltages of a TFT-LCD panel (gamma correction). The device also has an 8-bit current-sink DAC for V<sub>COM</sub> calibration, and a high output current V<sub>COM</sub> amplifier. The integrated EEPROM, for storing all reference voltage data, features an endurance of 10,000 write cycles and is read/write capable over the digital

The dual bank outputs are capable of fast switching between different sets of voltage reference data. Bank switching is ideal to quickly change between gamma curves for 2D/3D TFT-LCD applications. The device's outputs are double buffered, which allows for updating data in one bank while data is simultaneously output

Combining gamma and  $V_{COM}$  reference voltage generators, with low power operation, and EEPROM, the ISL24863A provides a complete reference voltage solution ideal for tablet, monitor, and mobile TFT-LCD applications.

The ISL24863A is available in a 32 Ld 5x5mm TQFN thermally enhanced package. It is specified for operation over the -40°C to +85°C ambient temperature range.

## Applications

Tablet, Notebook, Monitor TFT-LCD  
Mobile - 2D/3D TFT-LCD  
General-Purpose Reference Voltage Generator

Parameters	ISL24863A
# of Devices/ Channels	15
$V_S$ Range (V)	6.3 to 19
Interface Type	I <sup>2</sup> C
Bus Interface Speed	0.4 MHz
Rail-to-Rail	Out
$I_S$	1.1 mA