

Device Information

ISL24008

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14-Channel Programmable SPI TFT-LCD Reference Voltage Generator with Integrated 4-Channel Static Gamma Drivers and Integrated Programmable Vcom Calibrator

 Datasheets, Related Docs & Simulations	 Description	 Key Features	 Parametric Data	 Application Diagrams	 Related Devices
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Ordering Information



Available in RoHS/Pb-Free



Buy direct from Intersil



Check distributor inventory



Request samples

Part No.	Design-In Status	Temp.	Package	Price					
				MSL	US \$				
ISL24008IRTZ	Active	Ind	32 Ld TQFN	3	4.11				
ISL24008IRTZ-T13	Active	Ind	32 Ld TQFN T+R	3	4.11				

The price listed is the manufacturer's suggested retail price for quantities of 1K units. However, prices in today's market are fluid and may change without notice.

MSL = Moisture Sensitivity Level - per IPC/JEDEC J-STD-020

SMD = Standard Microcircuit Drawing

 Description

The ISL24008 is a 14-Channel programmable reference voltage generator with four channels of static gamma drivers integrated, for a complete 18-Channel total gamma solution for TFT-LCD displays.

The ISL24008 is divided into two banks of seven generators: one designed to cover the range from V_{REFL_L} to V_{REFL_H} ; the remaining seven channels covering the range from V_{REFU_L} to V_{REFU_H} . Each bank has its own separate high and low reference inputs, with integrated buffers (four static gamma drivers) to drive the column driver internal DAC resistor string to within 0.2V from the top and bottom rails.

ISL24008 includes an SPI interface for programming the offset values.

ISL24008 is available in the 32 Ld TQFN package and is specified for operation over the -40°C to +85°C temperature range.

 Key Features

- 14-Channel programmable
- 4-Channel static
- Integrated Programmable Vcom Calibrator
- Programmable with 20mV resolution
- Digital supply 3.3V
- Supply current of 10mA (without load)
- SPI interface
- RoHS compliant

Related Documentation



Datasheet(s):

- [Programmable Gamma Buffer Data Sheet Request Form](#)



Technical Homepage:

- [Display Products](#)

**Parametric Data**

# of Devices/ Channels	14
V _S (V)	5 to 18
Bus Interface Type	SPI
Bus Interface Speed (MHz)	.4
Rail-to-Rail	Out
I _S (mA)	10

**Application Block Diagrams**

- [Mid-Size LCD Panel \(14 to 24 inch\)](#)
- [Small/Medium LCD Panel \(less than 14 inch\)](#)

Applications

- TFT-LCD drive circuits
- Reference voltage generators

**Related Devices**[Parametric Table](#)

EL5126	8-Channel TFT-LCD Reference Voltage Generator
EL5225	10-Channel TFT-LCD Reference Voltage Generator
EL5226	10- and 12-Channel TFT-LCD Reference Voltage Generator
EL5325	12-Channel TFT-LCD Reference Voltage Generator
EL5326	10- and 12-Channel TFT-LCD Reference Voltage Generator
EL5525	18-Channel TFT-LCD Reference Voltage Generator
EL5825	8-Channel TFT-LCD Reference Voltage Generator
ISL24002	14-Channel Static TFT LCD Reference Voltage Generator with 1-Channel V _{COM}
ISL24005	14-Channel Programmable I ² C TFT-LCD Reference Voltage Generator with Integrated 4-Channel Static Gamma Drivers and Integrated Programmable Vcom Calibrator
ISL24006	14-Channel Programmable Switchable I ² C TFT-LCD Reference Voltage Generator with Integrated 4-Channel Static Gamma Drivers
ISL24007	14-Channel Programmable Switchable I ² C TFT-LCD Reference Voltage Generator with Integrated 4-Channel Static Gamma Drivers
ISL24813	18-Channel Programmable I ² C TFT-LCD Reference Voltage Generator with 1-Channel VCOM and Integrated Programmable VCOM Calibrator
ISL24821	12-Channel Programmable Switchable I ² C TFT-LCD Reference Voltage Generator with Integrated 1-Channel Op Amp and V _{COM} Calibrator
ISL24822	14-Channel Programmable I ² C TFT-LCD Reference Voltage Generator with 1-Channel V _{COM} and Integrated Programmable V _{COM} Calibrator

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