

## I2C/SMBus Interface 400kHz 3.6V 24-Pin QSOP Tube

**Manufacturer:** [Analog Devices, Inc](#)

**Package/Case:** SSOP24

**Product Type:** Drivers

**RoHS:** RoHS Compliant/Lead free 

**Lifecycle:** Active



Images are for reference only

[Inquiry](#)

### General Description

The MAX7313 I2C-compatible serial interfaced peripheral provides microprocessors with 16 I/O ports. Each I/O port can be individually configured as either an open-drain current-sinking output rated at 50mA and 5.5V, or a logic input with transition detection. A 17th port can be used for transition detection interrupt, or as a general-purpose output. The outputs are capable of driving LEDs, or providing logic outputs with external resistive pullup up to 5.5V. PWM current drive is integrated with 8 bits of control. Four bits are global control and apply to all LED outputs to provide coarse adjustment of current from fully off to fully on with 14 intensity steps. Each output then has individual 4-bit control, which further divides the globally set current into 16 more steps. Alternatively, the current control can be configured as a single 8-bit control that sets all outputs at once. Each output has independent blink timing with two blink phases. All LEDs can be individually set to be on or off during either blink phase, or to ignore the blink control. The blink period is controlled by a register. The MAX7313 supports hot insertion. All port pins, the active-low INT output, SDA, SCL, and the slave-address inputs AD0-2 remain high impedance in power-down ( $V^+ = 0V$ ) with up to 6V asserted upon them. The MAX7313 is controlled through the 2-wire I2C/SMBus serial interface, and can be configured to any one of 64 I2C addresses.

### Key Features

Supply voltage range is 2V to 3.6V

Operating temperature range from -40°C to 125°C

Pin and software compatible with the MAX7311, PCA9535 and PCA9555

400Kbps 2-wire serial interface, 5.5V tolerant

Each output has independent blink timing with two blink phases

High output current of 50mA max per port

Standby current is 1.2μA

Controlled through 2-wire I2C/SMBus serial interface & can be configured to one of 64 I2C addresses

Supports hot insertion

### Application

Keypad Backlights

LCD Backlights

LED Status Indication

Notebook Computers

Portable Equipment

RGB LED Drivers

### Recommended For You

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**MAX7321AEE+**

Analog Devices, Inc  
SSOP16

**MAX9180EXT-T**

Analog Devices, Inc  
SC70-6

**MAX232AEWE+**

Analog Devices, Inc  
SOP16

**MAX488ESA+**

Analog Devices, Inc  
SOP-8

**MAX14931CASE+T**

Analog Devices, Inc  
16-SOIC

**MAX7325ATG+**

Analog Devices, Inc  
QFN-24

**MAX14824GTG+**

Analog Devices, Inc  
TQFN24

**MAX9259GCB/V+**

Analog Devices, Inc  
TQFP64

**MAX7319ATE+T**

Analog Devices, Inc  
TQFN16

**MAX5940AESA+T**

Analog Devices, Inc  
SOP8

**MAX3451EETE-T**

Analog Devices, Inc  
BGA

**MAX3452FEUD+**

Analog Devices, Inc  
BGA

**MAX3120EUA+T**

Analog Devices, Inc  
MSOP-8

**MAX3131CAI-T**

Analog Devices, Inc  
BGA

**MAX7312AUG+T**

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TSSOP