



MAX20092EVSYS

## Evaluation Kit for the MAX20092



NDA Required. [Request Full Data Sheet and Software](#)



Active: In Production.

[Please check latest availability status for a specific part variant.](#)

### **Description**

The MAX20092 evaluation system is a matrix LED dimmer system featuring the MAX20092 12-switch matrix LED dimmer IC. The system includes two MAX20092 ICs that each control a string of 12 series LEDs. Each LED can be controlled individually or grouped. The user can turn the LED on and off with or without fading. The two strings of 12 series LEDs are driven by the MAX20097, a dual buck controller IC, with a current of 0.5A. The power supply for the dual buck controller is generated from the MAX16990, boost controller IC that is powered by an external 12V supply. For the detailed operation of the MAX20092 IC, refer to the MAX20092 IC data sheet.

### **Key Features**

- Operating Input Supply Range: 9V to 16V
- Individual and Group Control of LEDs for Turn On, Turn Off, and PWM Dimming
- Dimming With and Without Fade
- Phase Shift Capability
- LED Slew Rate Control for Turn On/Off
- Open and Short Indication for Each Individual LED
- Adjustable for Short Thresholds
- Open Trace Detection
- Adjustable for PWM Dimming Frequency
- Thermal Warning and Thermal Shutdown Indication
- Status Reporting on SPI Errors
- Individual, Global, or Cluster Write Modes Through the SPI Interface
- Reporting of LED Binning Resistor ( $R_{\text{GRADE}}$ )
- Proven PCB Layout
- Fully Assembled and Tested

| Device | Fab Process | Technology | Sample size | Rejects | FIT at 25°C | FIT at 55°C |
|--------|-------------|------------|-------------|---------|-------------|-------------|
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[Contact reliability engineer for information](#)

Note : The failure rates are summarized by technology and mapped to the associated material part numbers. The failure rates are highly dependent on the number of units tested.