

Machine Vision



# LTN-450 Series

4-CH/ 2-CH constant-current LED controller supporting 10A overdriving



CE FCC

## Key Features

- Constant current LED lighting control
- 4-CH/ 2-CH LED outputs
  - Up to 2A continuous output, max 180 W rated
  - Up to 10A overdriving output, max 500 W peak
- 4-CH/ 2-CH isolated trigger inputs
- Support versatile operating modes: continuous, pulsed, overdriving and switched
- Support RS-232 and Ethernet interface
- 12 ~ 35V wide-range DC input

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## Introduction

LTN-450 series is a constant-current LED lighting controller with overdriving capability. Driving LED light with constant current output offers precise control of light intensity in mA scale and generates stable illumination for machine vision applications.

LTN-450 series provides up to four LED control channels capable of delivering up to 2A current continuously with a total of 180W power budget. It also has four isolated trigger inputs to accept strobe signals from cameras or proximity sensors. In addition, LTN-450 supports 10A overdriving output to strobe the LED with up to 10x brightness for a very short period of time. This gives a burst of 500W peak energy to LED lights and benefits applications such as line scan imaging and high-speed image capture. LTN-450 imposes a patent-pending, MCU-based scheme to rigidly regulate strobe pulse width and overall duty cycle to protect LED lights against burning-out.

The operating mode, output current, trigger source, trigger delay and pulse width can be easily configured via RS-232 or Ethernet interface. A simple GUI utility and cross-platform driver API make it easy to manipulate and control in various applications. LTN-450 series provides a cost-effective way to control the LED where precise and stable illumination matters.

## Specifications

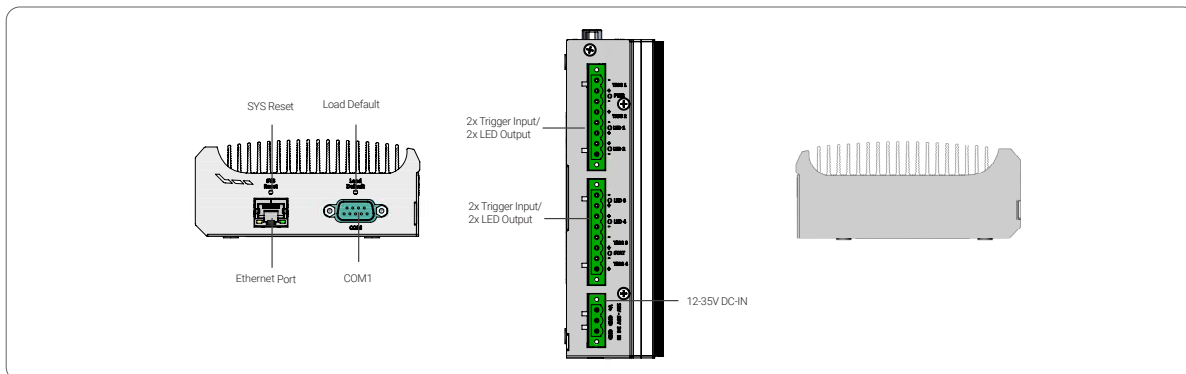
|                         | LTN-454   | LTN-452  |
|-------------------------|---|--|
| Communication Interface | 1x RS-232 COM port<br>1x Ethernet port  |  |
| LED Lighting Controller | 4-CH constant current outputs   | 2-CH LED constant current outputs  |
| Output voltage          | Continuous: 5V to 24V<br>Overdriving: 5V to 40V   |  |
| Supply voltage          | 1x 3-pin pluggable terminal block for 12~35V DC input   |  |
| Output current          | Up to 2A in 2.5 mA increments<br>Up to 10A for overdriving in 10 mA increments  |  |
| Output power            | Up to 180W rated power output for continuous mode<br>Up to 500W peak power output for overdriving mode  |  |
| Operating modes         | Continuous, pulsed, overdriving and switched modes  |  |
| Trigger input           | 4-CH isolated trigger inputs<br>Logic low: 0V ~ 1.5V<br>Logic high: 5V ~ 24V  | 2-CH isolated trigger inputs<br>Logic low: 0V ~ 1.5V<br>Logic high: 5V ~ 24V |
| Pulse width             | For overdriving mode: minimum 50 $\mu$ s in 1 $\mu$ s increments,<br>maximum 30 ms according to 100% to 1000% overdriving scale<br>For other modes: minimum 400 $\mu$ s in 1 $\mu$ s increments |  |
| Pulse Delay             | Minimum 0s $\mu$ s in 1 $\mu$ s increments  |  |
| Operating Temperature   | 0°C ~ 60°C *  |  |
| Dimension               | 47 mm(W) x 108 mm(D) x 150 mm (H)   |  |
| Mounting                | DIN-rail mount  |  |
| Weight                  | 0.9 kg  |  |
| EMC                     | CE/FCC  |  |

\* Due to various operating modes and current output discrepancies, active cooling may be required.

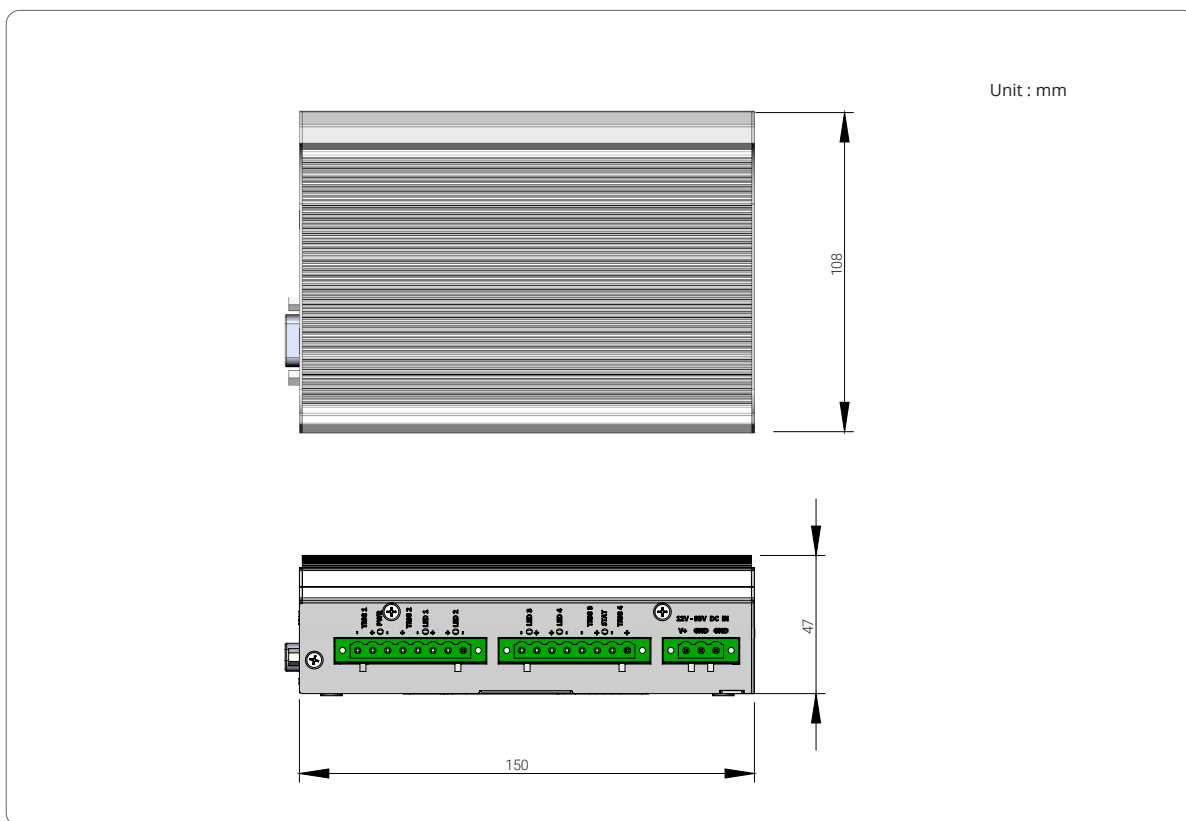
LTN-450 Series



## Appearance



## Dimensions



## Ordering Information

| Model No. | Product Description  |
|-----------|--|
| LTN-454   | 4-CH constant-current LED controller supporting 10A overdriving output and 4x trigger inputs |
| LTN-452   | 2-CH constant-current LED controller supporting 10A overdriving output and 2x trigger inputs |

## Optional Accessories

|             |  |
|-------------|--|
| PA-280W-ET2 | 280W AC/ DC power adapter 24V/ 11.67A; 16AWG/ 100cm; cord end terminals for terminal block, operating temperature : -30°C to 60°C. |
| PA-480W-DIN | 480W AC/ DC power adapter DIN-rail mount, 24V 20A, 90~264VAC/ 127~370VDC, terminal block, -20 to 70°C                              |

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