# **Maximizing IC Performance**

## **DESCRIPTION**

MT7665 is a linear, five-channel, smart dimming, and constant current LED driver, which is suitable for small power applications. Connecting with R/G/B lights and C/W lights and interfacing with external MCU, the chip can realize red/green/blue and cold/warm dimming.

MT7665 integrates five independent high-voltage output pins and DA function. The pins adopt I<sup>2</sup>C protocol input which receives the control signal from the external MCU, then adjusts the output current of each pin to generate up to 1024-level current grayscale changes, realizing no flicker smart dimming.

MT7665 is designed with over-temperature protection, the chip reduces the output current automatically once the chip temperature reaches the threshold, which ensures the system's reliability.

#### **APPLICATIONS**

- LED bulb light
- LED downlight, LED ceiling light
- Other LED lighting

## **FEATURES**

- Innovative smart dimming control technology
- OUT1/2/3's maximum current up to 64mA
- OUT4/5's maximum current up to 80mA
- Supports 5 OUT pins output current simultaneously
- Single-channel independent 1024-level grayscale, no flicker
- Inter-chip output current deviation <±4%
- Input voltage: 120Vac/220Vac
- Integrates high voltage startup power supply
- Designed with I<sup>2</sup>C protocol pins to realize smart dimming
- Ultra-low standby current: <80uA</li>
- Adjustable maximum current gain
- Programmable maximum current, no external REXT resistor is required
- Adjustable over-temperature function
- Supports Bluetooth, WIFI, 2.4G, Zigbee and other smart modules
- Available in ESOP8 package

## **TYPICAL APPLICATION CIRCUIT**

