

## WS2811 Signal line 256 Gray level 3 channel Constant current LED drive

### Feature

- Output port compression 12V.
- Built in stabilivolt, Only add a resistance to IC VDD feet when under 24V power supply.
- Gray level 256 can be adjusted and scan frequency not less than 400Hz/s.
- Built in signal reshaping circuit,after wave reshaping to the next driver, ensure wave-form distortion not accumulate.
- Built-in electric reset circuit and power lost reset circuit.
- Cascading port transmission signal by single line.
- Any two point the distance more than 10m transmission signal without any increasecircuit.
- When the refresh rate is 30fps, low speedmodele cascade number are not less than 512 points, high speed mode not less than1024 points.
- Send data at speeds of up to 400 Kbps and 800 Kbps two patterns.

### Applications

- LED decorative lighting.
- Indoor/outdoor LED video or irregular screen.

### General description

The WS2811 is 3 output channels special for LED driver circuit. It internal include intelligent digital port data latch and signal reshaping amplification drive circuit.Also include a precision internal oscillator and a 12V voltage programmable constant current output drive. In the purpose of reduce power supply ripple, the 3 output channels designed to delay turn-on function.

IC use single NZR communication mode.After the chip power-on reset, the DIN port receivedata from controller, the first IC collect initial 24bit data then sent to the internal data latch, theother data which reshaping by the internal signal reshaping amplification circuit sent to the next cascade IC through the DO port. After transmission for each chip,the signal to reduce 24bit. IC adopt auto reshaping transmit technology, making the chip cascade number is not limited the signal transmission, only depend on the speed of signal transmission.

The data latch of IC depend on the received 24bit data produce different duty ratio signal at OUTR, OUTG, OUTB port. All chip synchronous send the received data to each segment when the DIN port input a reset signal. It will receive new data again After the reset signal finished. Before a new reset signal received, the control signal of OUTR ,OUTG, OUTB port unchanged. IC sent PWM data that received justly to OUTR, OUTG, OUTB port, after receive a low voltage reset signal the time retain over 50us. We offer two package SOP8 and DIP8.