**General Description**

ET6042 is is designed for LED displays, it can support 16 PWM/ESPWM (Enhanced Spectrum PWM) control and provide 64 steps current gain. ESPWM technology can improve the screen refresh rate effectively.

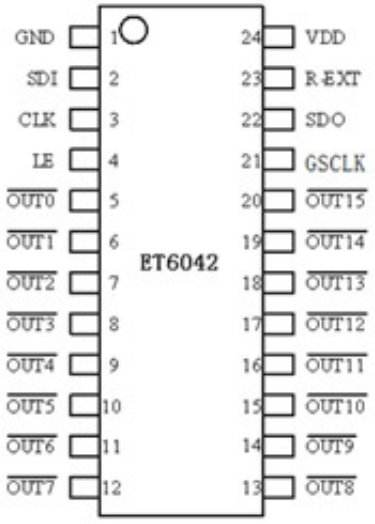
ET6042 has 4 lines serial input interface. ET6042 can provide 30 MHz input clock, to meet the system of large quantities of data transmission on demand. ET6042 built-in 16 shift registers, can transform serial of 16 input data into each output channel gray-scale data.

ET6042 provide 16 constant current output channels. The output channel's current is not influenced by the output voltage, each output channel can provide 2 ~ 45 the mA's constant current. User can choose different value external resistance to adjust the current of output channel, and also can change six current gain control data to adjust the output channel current. ET6042 guarantees to endure maximum 20V at the output port, so it can be in each output terminal combination of serial LEDs.

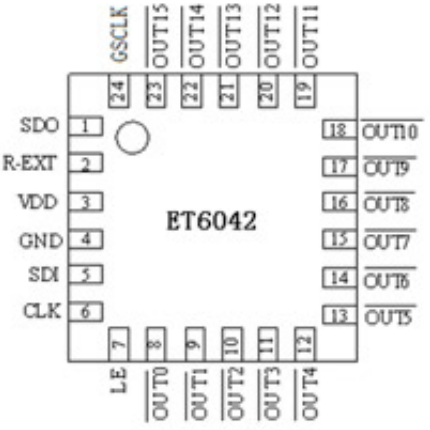
**Features**

- Supply voltage：3.3V/5V
- 16 constant-current output channels
- Constant output current range：2 ~ 45 mA
- 3.3V Supply voltage：2~30mA
- 5V Supply voltage：2~45mA
- 16 (65,536 steps) grey-scale control， ESPWM technology can improve the screen refresh rate effectively
- Support the traditional 16 PWM control
- output channel's current is not influenced by the output voltage
- output port can endure maximum 20V
- adjust all channel's current by a external resistance
- 64 steps programmable current gain function
- Excellent output current accuracy
- between channels: <±1.5% (typical), and between ICs: <±3% (typical)
- 30MHz clock frequency
- Schmitt trigger input
- Package：SSOP24-3(ET6042S)， SSOP24-2(ET6042SN)， SOP24(ET6042M)， QFN24(ET6042Y)

**Pin Configuration**




SSOP24-3(ET6042S), SSOP24-2(ET6042SN), SOP24(ET6042M)




QFN24(ET6042Y)