

Circuit Description

The circuit of this unit is consisted of AC/DC transfer circuit, switching circuit, buck-boost circuit, color control circuit and LEDs.

AC/DC transfer circuit: It comprises D1, D2, L1 and C3, C4. Inductor L1 could reduce high frequency noise and interference which were from power supplier and this ballast. In the AC/DC transfer circuit, the 120VAC input is rectified by the diodes D1, D2 and the capacitors C3, C4 into DC voltage.

Switching circuit: It comprises some circuit within IC4, its' frequency is about 32 kHz.

Buck-boost circuit: It comprises IC4, L2, R4, R5, D3, D7, C1, C2, C5 and L2. This unit transfers the DC voltage into a one other DC voltage that is suitable for driving LED.

Color control circuit: It comprises IC5, IC1~IC3, R2~R3, R6~R10, C6~C7. This circuit unit changes the current of different branch (Red, green, blue) of LED at a cycle period of 140s, so the color of lamp could be changed automatically.

LEDs: The LEDs will consume the power and make light.