Raffar Technology Corp.

RT5958D

Built-in Swift Register 8-channel PMOS with Anti-ghosting Control Function

2020/06

Version: 1.6

Description

RT5958D is an integrated 8-channel PMOS outputs for high refresh rate LED display applications to eliminate the LED ghosting phenomena. By controlling the BK signal timeslot (LED discharge), the RT5958D is not only to prevent LED cascading blink which caused by an LED open or short damage, but also to avoid the over reverse voltage to damage LEDs on display performance. The RT5958D gives a very simple control model to let controller determined the turn-on, discharge, and row blank timing. Built in the 8-bit shift register, RT5958D make the data transfer by serial connection without decode components on board, this also do the help on fine pitch LED display PCB layout.

Features

- Built-in anti-ghosting function for fine pitch LED displays
- Eliminate the LED cascading blink by LED short
- Eliminate the LED cross blink by LED open (alternative)
- Serial Data connection transfer for easy and simplified PCB layout
- Wipe off 138decoder

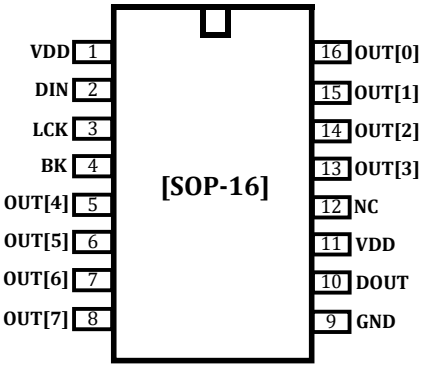
Application

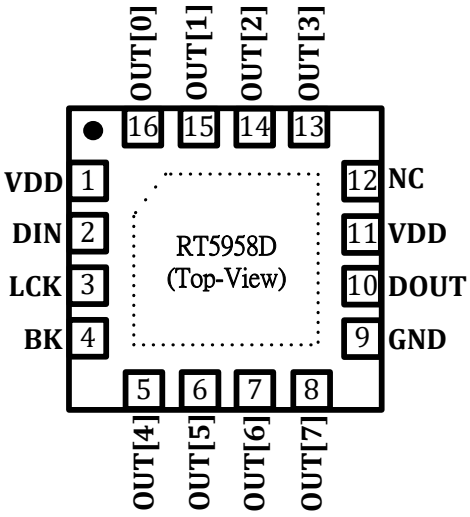
Indoor and outdoor full color LED display

Order Information

No.	Part No.	Package
1	RT5958DSP	SOP16-150 mil-1.27 mm
2	RT5958DQN	QFN16-4*4mm

Pin Assignment



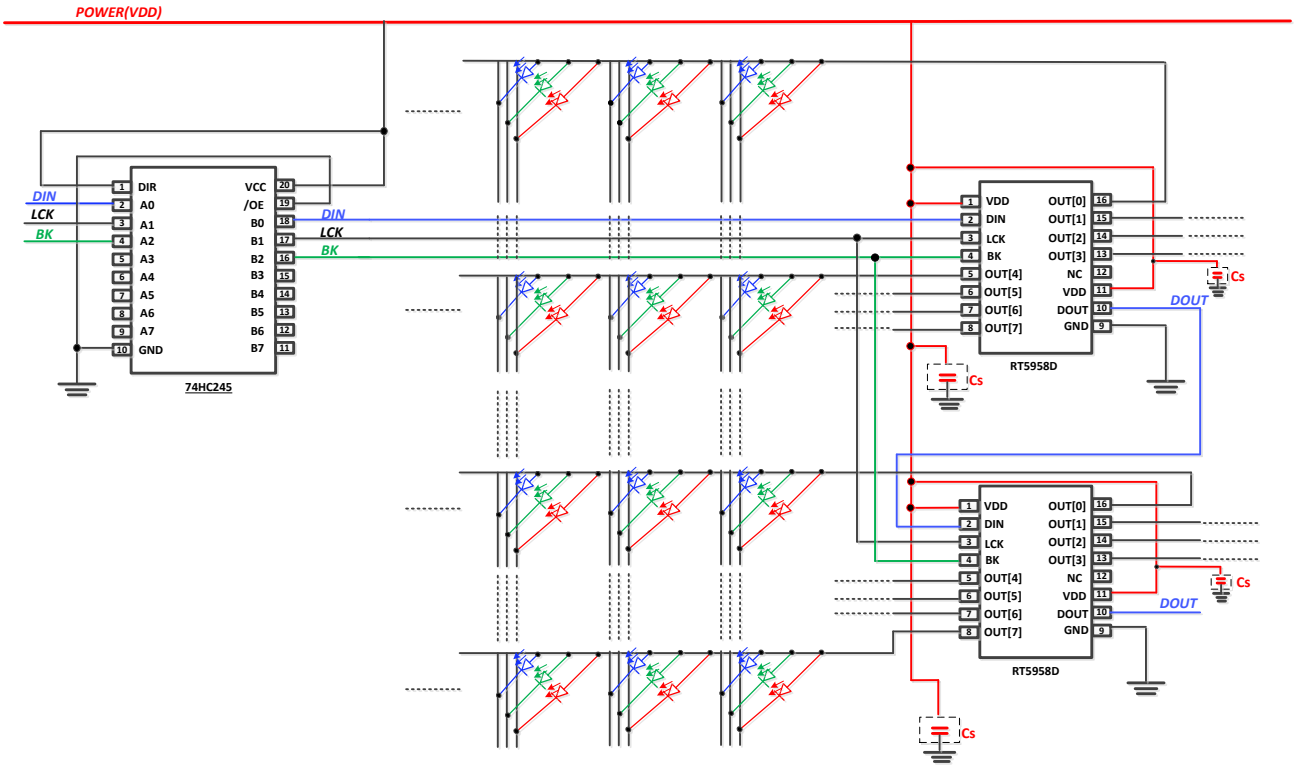


Recommend Application Circuit

To have the best performance of fine pitch LED display, RT5958D provides the discharge circuit to eliminate the ghosting from LED row. However, there is also a slight LED ghosting from the LED column which needs to use the LED driver with pre-charge function to achieve the non-ghosting display performance. (Pre-charge LED driver, like RT5965)

By controlling the BK signal timeslot, the RT5958D can effectively avoid the over reverse voltage to damage LEDs and can improve the LED cascading bright line caused by a LED open or short.

RT5958D is an integrated 8 outputs PMOS. The IC temperature has to be monitored in practical use.



[Serial Connection]

Note

The contents of this document are provided in connection with Raffar Technology Corporation products. Raffar reserve the right to make corrections, modifications, improvements, and other changes to the specifications and product descriptions at any time without notice.

Raffar products are not authorized, designed of intended for use in military/ aerospace/ automotive/ atomic energy control instruments applications or environment, or for other applications intended to support or sustains life. Raffar customer using and selling these products for use in such applications do so at their own risk. Raffar will not be responsible for any failure to meet such requirements.