

Product Overview

CAT4016: LED Driver, 16-Channel, Constant Current

For complete documentation, see the data sheet.

The CAT4016 is a 16 channel constant current driver for LED billboard and other general display applications. LED channel currents are programmed together via an external RSET resistor. Low output voltage operation on the LED channels as low as 0.4 V (for 2 to 100 mA LED current) allows for more power efficient designs. A high-speed 4-wire serial interface of up to 25 MHz clock frequency controls each individual channel using a shift register and latch configuration. A serial output data pin (SOUT) allows multiple devices to be cascaded and programmed via one serial interface. The device also includes a blanking control pin (BLANK) that can be used to disable all channels independently of the interface. Thermal shutdown protection is incorporated in the device to disable the LED outputs if the die temperature exceeds a set limit.

Features

- 16 Constant current-sink channels
- Serial interface up to 25 MHz clock frequency
- 3 V to 5.5 V logic supply
- LED current range from 2 mA to 100 mA
- LED current set by external RSET resistor
- 300 mV LED dropout at 30 mA
- Thermal shutdown protection

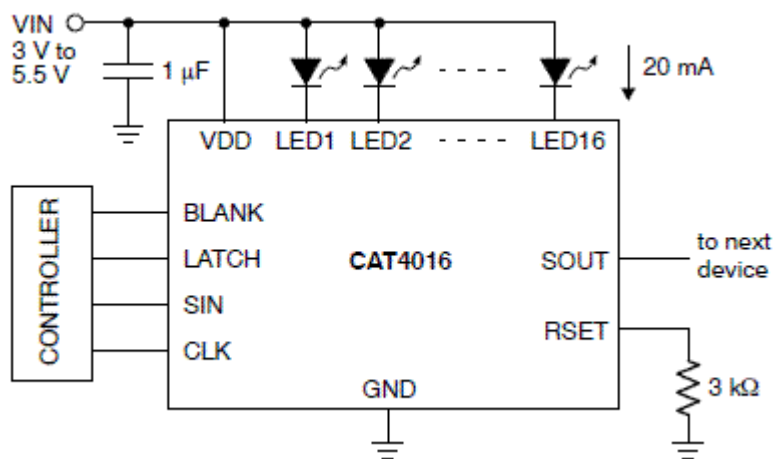
Applications

- Billboard Display
- Marquee Display
- Instrument Display
- General Purpose Display

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	V _I Max (V)	I _O Max (mA)	LEDs in Series, Max #	LEDs in Parallel, Max #	Package Type
CAT4016HV6-GT2	0.5067	Pb-free	Active	5.5	1600	16	16	TQFN-24
		Halide free						
CAT4016W-T1	0.7733	Pb-free	Active	5.5	1600	16	16	SOIC-24W
		Halide free						
CAT4016Y-T2	0.7733	Pb-free	Active	5.5	1600	16	16	TSSOP-24
		Halide free						
CAV4016HV6-T2	1.1733	AEC Qualified PPAP Capable Pb-free Halide free	Active	5.5	1600	-	16	WQFN-24

Application Diagram



For more information please contact your local sales support at www.onsemi.com.

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