



Product Overview

NCL31000: Intelligent LED Driver, YellowDot™ Compliant, with Precision Dimming, Diagnostics and Power Metrology

For complete documentation, see the data sheet.



The NCL31000 is an intelligent LED driver targeting luminaire applications. The NCL31000 incorporates a high efficiency buck LED driver that supports both high-bandwidth analog and PWM dimming down to zero current. Two auxiliary DC-DC converters are included to power a microcontroller and other sensors. Diagnostics are included to measure input and output current and voltage, LED temperature and DC-DC voltages. The device is ideal for YellowDot™ LED drivers.

Features

- High efficiency buck LED driver
- Integrated 3.3V buck converter
- Adjustable 2.5 to 24V buck converter
- High modulation bandwidth (~50kHz); VLC capable
- I2C or SPI serial interface

Benefits

- Deep dimming to zero with 0.1% accuracy
- Low EMI design
- Protection against LED shorts and opens
- IC and LED over temperature protection
- Diagnostic functions to measure voltages and currents

Applications

- LED Lighting
- Backlight LED driver

End Products

- YellowDot™ LED drivers
- Intelligent LED Luminaries

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
NCL31000MNITWG	4.8532	Pb-free Halide free non AEC-Q and PPAP	Active	57	3000	13	16	QFN-48
NCL31000MNSTWG	4.8532	Pb-free Halide free non AEC-Q and PPAP	Active	57	3000	13	16	QFN-48

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

Created on: 6/23/2021