

# Highly Efficient Dimmable LED Driver Primary Control System Utilizing ICL8001G/ICLS8082G

Infineon enables off-line LED driver designs to achieve cost effective and energy efficient solutions. The Infineon LED driver solution utilizing ICL8001G/ICLS8082G addresses exactly these parameters and sets the new benchmark.

ICL8001G/ICLS8082G are quasi-resonant controller, optimized for phase-cut dimmable off-line LED applications. Precise PWM generation supports phase-cut dimming and power factor correction. Intelligent control allows excellent system efficiencies and provides superb light quality. ICL8001G/ICLS8082G facilitate simple and fast designs for smallest form factor in compliance with regulatory standards. Multiple safety functions ensure a full system protection.

ICLS8082G combines the ICL8001G controller with an integrated CoolMOS™ transistor.

## Less Energy – More Light @ Reduced System Cost ICL8001G/ICLS8082G

### **Applications**

- 100W / 60W / 40W incandescent bulb replacement
- Lamp retrofits, LED tubes / luminaires, downlights

### System Highlights

- Leading edge performance
- Best-in-Class BOM cost
- Comprehensive feature set
- Outperforms worldwide regulatory requirements

### **Key Features**

- Single stage, primary control with PFC and dimming function
- High efficiencies of 90% and above available
- Significant BOM cost savings approx. 30% compared to existing solutions
- Additional energy savings supported within a wide phase-cut dimming range
- Superb light quality intelligent regulation for flicker free operation
- Unmatched power quality power factor exceeding 98%
- Isolated driver output for optimized thermal management
- Minimized external component count enables smallest form factor and maximum reliability

### LED Bulb and Driver Board dimmable



### **Evaluation Board**

- Please contact your local Infineon office
- Documentation: www.infineon.com/LED-Bulb

### ICL8001G Driver Board



ICLS8082G Driver Board

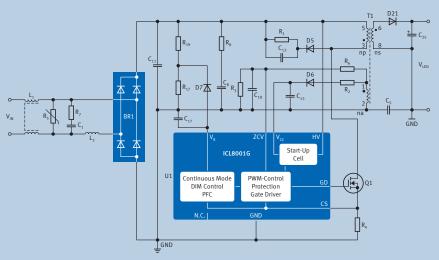


### Highly Efficient Dimmable LED Driver

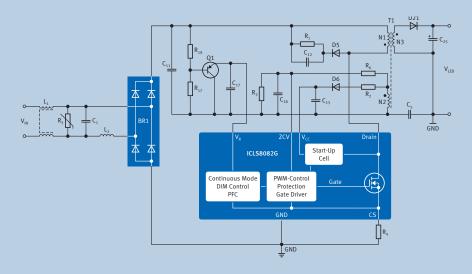
### Primary Control System Utilizing ICL8001G/ICLS8082G

### **Application Circuit Diagrams**

ICL8001G



ICLS8082G



### Product Information

Part No.	Package	Order. No.
ICL8001G	PG-DSO-8	SP000773086
ICLS8082G	PG-DSO-12	SP000899842





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