

ISL8033DEMO1Z

Dual 3A Low Quiescent Current, High Efficiency, Synchronous Buck Regulator Demonstration Board

AN1611  
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**Description**

The ISL8033DEMO1Z kit is intended for use by individuals with requirements for Point-of-Load applications sourcing from 2.85V to 6V. The ISL8033DEMO1Z demonstration board is used to demonstrate the performance of the [ISL8033](#) low quiescent current mode converter.

The ISL8033 is offered in a 4mmx4mm 24 Ld QFN package with 1mm maximum height. The complete converter occupies less than 147.742mm<sup>2</sup>.

**Key Features**

- Dual 3A high efficiency synchronous buck regulator with up to 95% efficiency
- Power-Goods (PG) output with 1.5ms delay
- 2.85V to 6V supply voltage
- 2% output accuracy over temperature/load/line
- Start-up with prebiased output
- External synchronization up to 6MHz
- Typical 8µA logic controlled shutdown current
- 100% maximum duty cycle for lowest dropout
- Internal current mode compensation
- Peak current limiting, hiccup mode short-circuit protection and over-temperature protection
- Negative current detection and protection
- Adjustable peak overload current

**Recommended Equipment**

The following materials are recommended to perform testing:

- 0V to 10V power supply with at least 3A source current capability or 5V battery
- Electronic loads capable of sinking current up to 3A
- Digital Multimeters (DMMs)
- 100MHz quad-trace oscilloscope
- Signal generator

**Quick Setup Guide**

1. Ensure that the circuit is correctly connected to the supply and loads prior to applying any power.
2. Connect the bias supply to VIN, the plus terminal to VIN and the negative return to P1.
3. Turn on the power supply.
4. Verify the output voltage is 1.8V for V<sub>OUT1</sub> and 1.8V for V<sub>OUT2</sub>.

**Ordering Information**

PART NUMBER	DESCRIPTION
ISL8033DEMO1Z	ISL8033 demonstration board

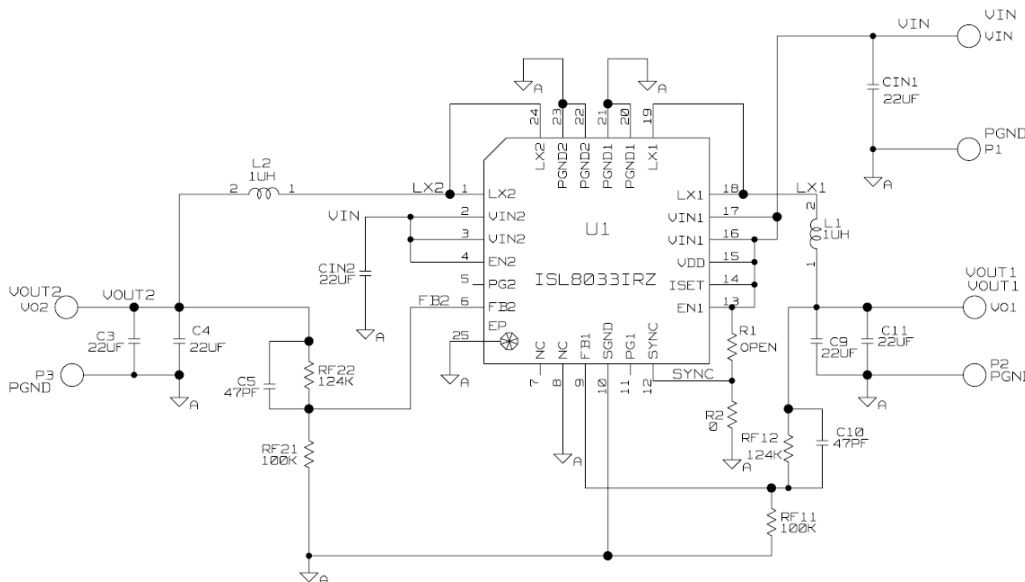


FIGURE 1. ISL8033DEMO1Z SCHEMATIC



## ISL8033DEMO1Z Board Layout (Note 3)

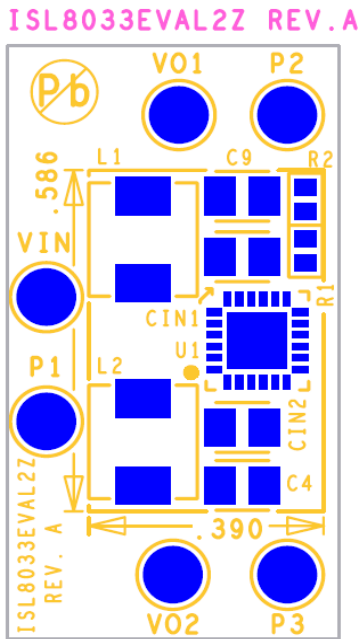


FIGURE 4. TOP COMPONENTS

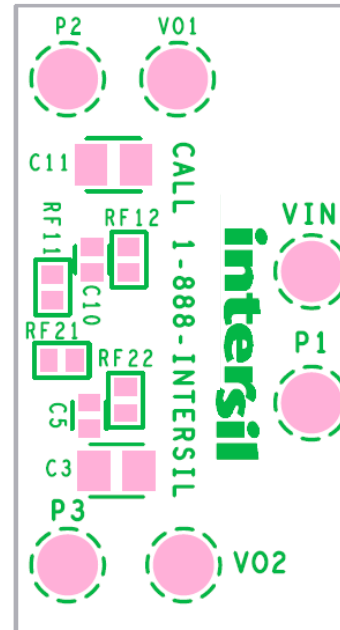


FIGURE 5. BOTTOM SILK SCREEN

**NOTE:**

- ISL8033DEMO1Z is the new part number for the board formerly labeled ISL8033EVAL2Z. If your board is branded with ISL8033EVAL2Z, it is the ISL8033DEMO1Z demonstration board.

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9251 Yonge Street, Suite 8309 Richmond Hill, Ontario Canada L4C 9T3  
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Dukes Meadow, Millboard Road, Bourne End, Buckinghamshire, SL8 5FH, U.K  
Tel: +44-1628-651-700, Fax: +44-1628-651-804

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Arcadiastrasse 10, 40472 Düsseldorf, Germany  
Tel: +49-211-6503-0, Fax: +49-211-6503-1327

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