PRODUCT BRIEF

RIC70847 evaluation board

Single phase buck controller with rad hard MOSFETs for 1.0 V/ 40.0 A FPGA core rail

RIC70847EVAL1 is a DC-DC buck controller evaluation board designed for use with logic level (5 V drive) FETs in SMD-0.5/e or SMD-0.2/e packages. It features the RIC70847, a rad hard buck controller with an integrated 5 V half-bridge gate driver optimized for point of load (PoL) applications. The board comes pre-populated with IRHLNMC87Y20 and IRHLNKC87Y30 MOSFETs.

This board provides a platform to evaluate RIC70847's capabilities for powering PoL rails in space-grade FPGA systems, such as AMD® XQRKU060 VCCINT, Microchip® RT PolarFire VDD, and NanoXplore® NG-Ultra VDDCORE rails. Its design includes features like an integrated dynamic load step circuit for transient testing and wide support for various output capacitance and inductor configurations.

Visit **www.infineon.com/ric70847** to download the user guide and request samples.



Key features

- Easy connection to power source, load and measurement probes
- Optional trimpots for adjustment of parameters: load line regulation (LLR), overcurrent limit (OCP), slope compensation (SLP) and switching frequency (RT)
- Supports wide range of inductor size and inductance with large footprint
- Simplified ability for transient testing with on-board dynamic load step circuit
- Optional DCR or standard current sense resistor

Space

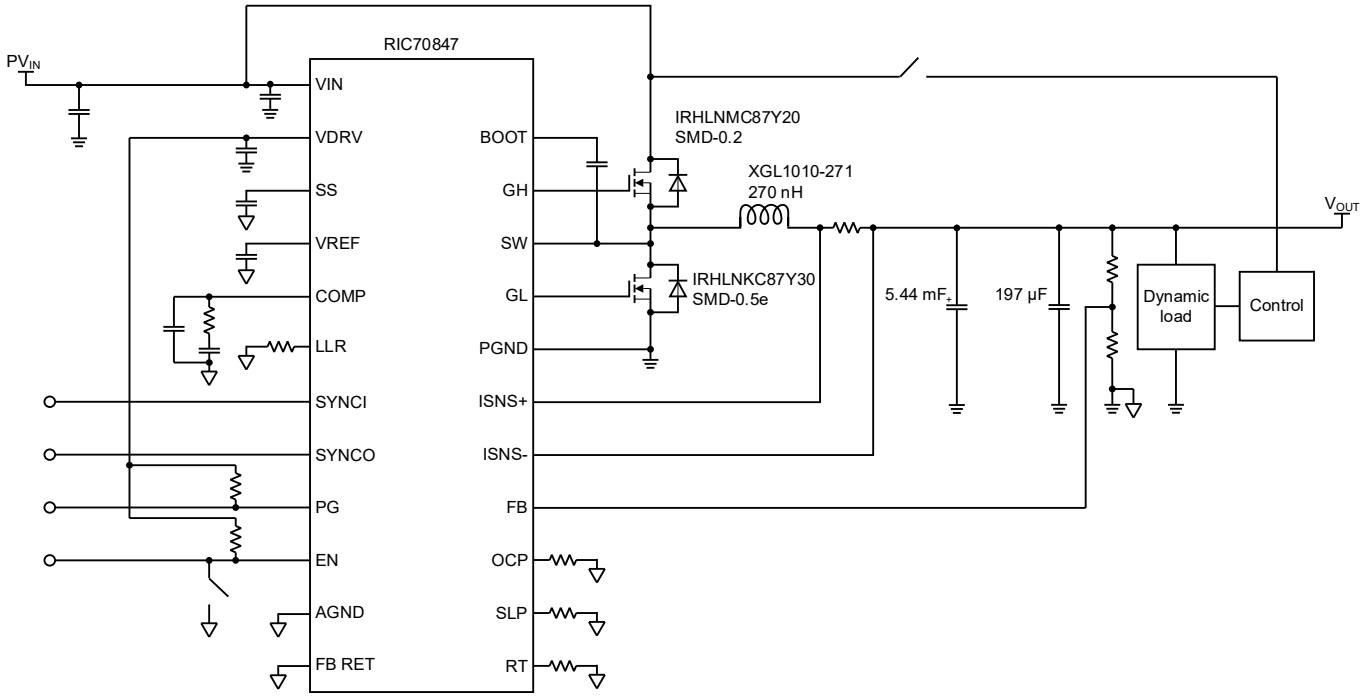
Defense technology

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Simplified schematic of RIC70847EVAL1



Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

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Public

Date: 10/2025

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