

# Bias supply DC-DC

## KIT\_6W\_12V\_P7\_950V

Auxiliary supply solution featuring off-line SMPS current mode controller IC with 950 V CoolMOS™ P7 SJ MOSFET

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# Description

## KIT\_6W\_12V\_P7\_950V



**Ordering code:**  
**KIT\_6W\_12V\_950V**

### Board components

- › Quasi-resonant flyback PWM controller (ICE5QSAG)
- › 950 V CoolMOS™ P7 SJ MOSFET (IPU95R3K7P7)

### Board specifications

- › Input voltage: 90 V<sub>DC</sub> - 400 V<sub>DC</sub>
- › Output voltage: 12 V<sub>DC</sub> (prim. and sec. side)
- › Output power max.: 6 W (prim. + sec. side)

### To be used with the following boards

- › EVAL\_800W\_ZVS\_FB\_CFD7
- › EVAL\_2KW\_ZVS\_FB\_CFD2
- › EVAL\_2KW\_ZVS\_FB\_CFD7
- › EVAL\_2.5KW\_CCM\_4PIN
- › EVAL\_2K5W\_CCM\_4P

# Product features

## ICE5QSAG

### Description:

- › Infineon latest 5<sup>th</sup> generation quasi-resonant flyback PWM controller offers high performance and comprehensive suite of protection to increase system robustness.

### Summary of features:

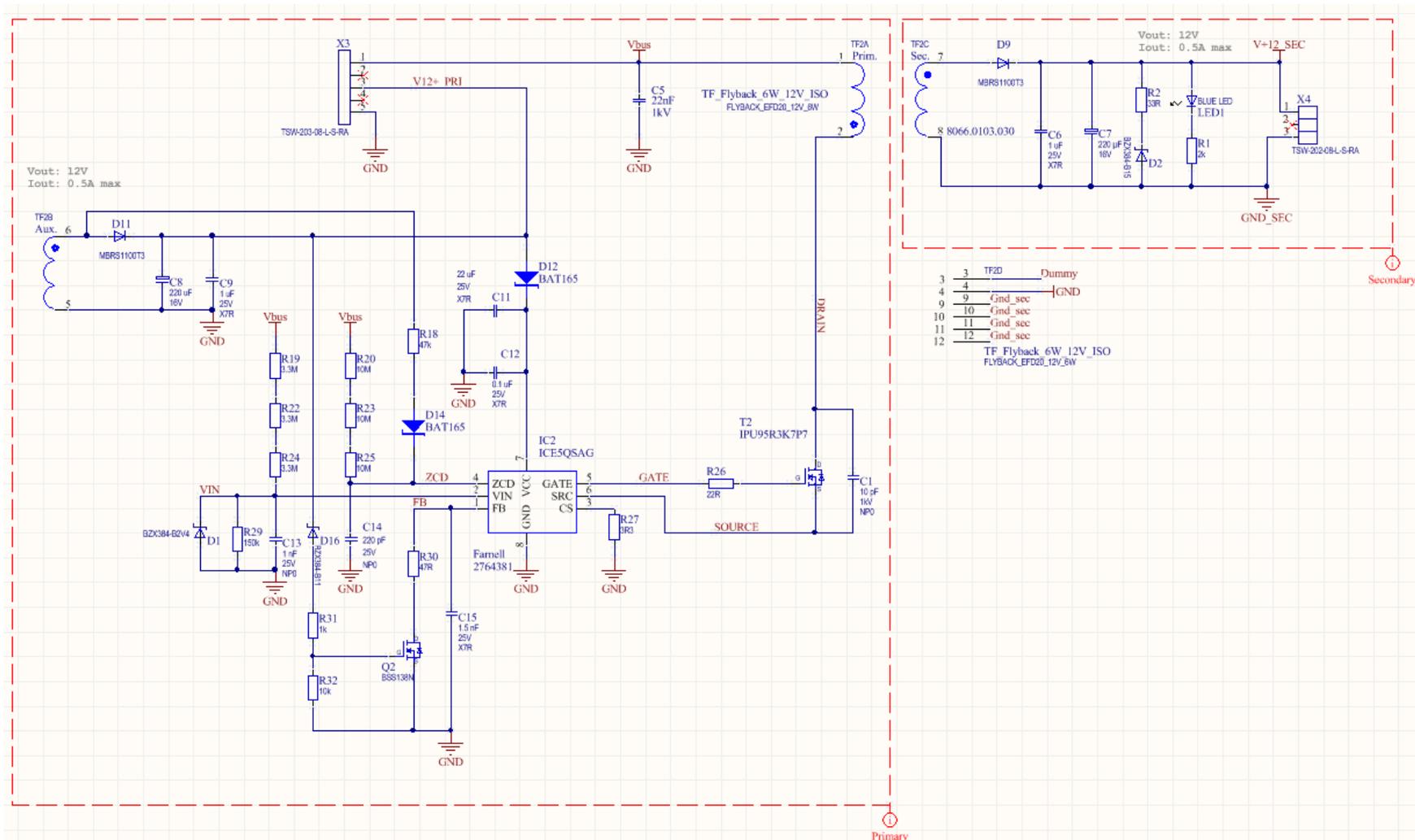
- › Novel quasi-resonant switching scheme
- › Rapid and adjustable start-up with cascode configuration
- › 2 level selectable active burst mode level
- › Built-in digital soft-start
- › Cycle by cycle peak current limitation
- › Digital frequency reduction with decreasing load for higher efficiency
- › Adjustable line input over-voltage and brown IN/OUT protection
- ›  $V_{CC}$  and CS pin short to ground protection
- › OLP, output short, output over-voltage, OTP with hysteresis and  $V_{CC}$  over/under voltage protection
- › Auto-restart for all protection features



### Benefits:

- › High efficiency with latest CoolMOS™ P7 SJ MOSFET family and quasi-resonant switching scheme
- › Auto-restart recovery scheme to minimize interruption to system operation
- › Extensive protection coverage to increase system robustness
- › Rapid start-up performance with cascode configuration

# Schematic

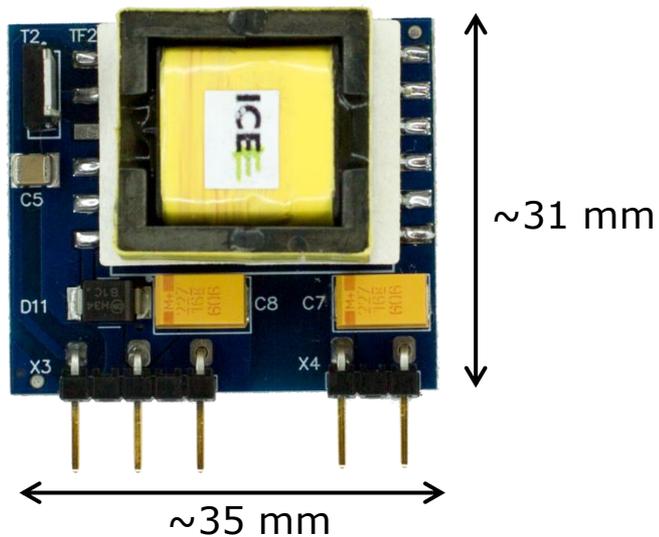


# Base board KIT\_6W\_12V\_P7\_950V



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## Technical Material

- > Application Notes
- > Simulation Models
- > Datasheets
- > PCB Design Data

> [KIT 6W 12V P7 950V](#)

## Evaluation Boards

- > Evaluation Boards
- > Demoboards
- > Reference Designs

> [www.infineon.com/evaluationboards](http://www.infineon.com/evaluationboards)

## Videos

- > Technical Videos
- > Product Information Videos

> [www.infineon.com/mediacenter](http://www.infineon.com/mediacenter)

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The screenshot shows the Infineon website header with the following elements:

- Infineon logo
- Navigation menu: Products, Applications, **Tools** (highlighted with a red box and '3'), About Infineon, Careers
- Utility links: **Newsletter** (highlighted with a red box and '1'), Contact, **Where to Buy** (highlighted with a red box and '2'), English, Login
- Search bar with a magnifying glass icon
- Main banner: A city skyline at night with the word 'Lighting' in large white text. Below it, text reads 'New LED controller enables low-wattage luminaire designs August 26th 17:00 CEST' and a 'Register Now!' button with a right arrow.
- Left and right navigation arrows on the banner.
- Five small grey dots at the bottom of the banner indicating a carousel.

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- Technology

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- Microcontroller
- RF & Wireless Control
- Security IC
- Sensor
- Smart Card IC
- Interface
- Transistor & Diode

- Power Overview
- Power MOSFET
- IGBT
- Smart Low-Side & High-Side Switches
- Linear Voltage Regulator
- DC-DC Converter
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- Silicon Carbide (SiC)
- High Power Thyristors & Diodes
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