

# Digital control kit

## KIT\_3KW\_2LLC\_DI\_CTRL

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# Digital control kit KIT\_3KW\_2LLC\_DI\_CTRL for EVAL\_3KW\_2LLC\_xx boards



**Ordering code:  
KIT\_3KW\_2LLC\_DI\_CTRL**

This adapter kit is intended for use when replacing the former card by a 1:1 similar version, in case something happened to your original one. The kit offers Infineon's XMC4400 microcontroller ARM® Cortex®.

## Board components

- › XMC™ microcontroller (XMC4400-F64K512 AB)
- › Linear voltage regulator (IFX1763XEJ V33)
- › Silicon Schottky diode (BAS 52-02V)

## To be used with the following boards

- › EVAL\_3KW\_2LLC\_P6\_220
- › EVAL\_3KW\_2LLC\_P6\_247
- › EVAL\_3KW\_2LLC\_C7\_20
- › EVAL\_3KW\_2LLC\_C7\_47
- › EVAL\_3KW\_2LLC\_P7\_47
- › EVAL\_3KW\_2LLC\_CFD7



# Product features

## BAS 52-02V

- > Silicon Schottky diode
- > Medium current rectifier Schottky diode
- > Low forward voltage at 200 mA
- > High reverse voltage
- > Pb-free (RoHS compliant) package1)
- > Qualified according AEC Q101

## IFX1763XEJ V33

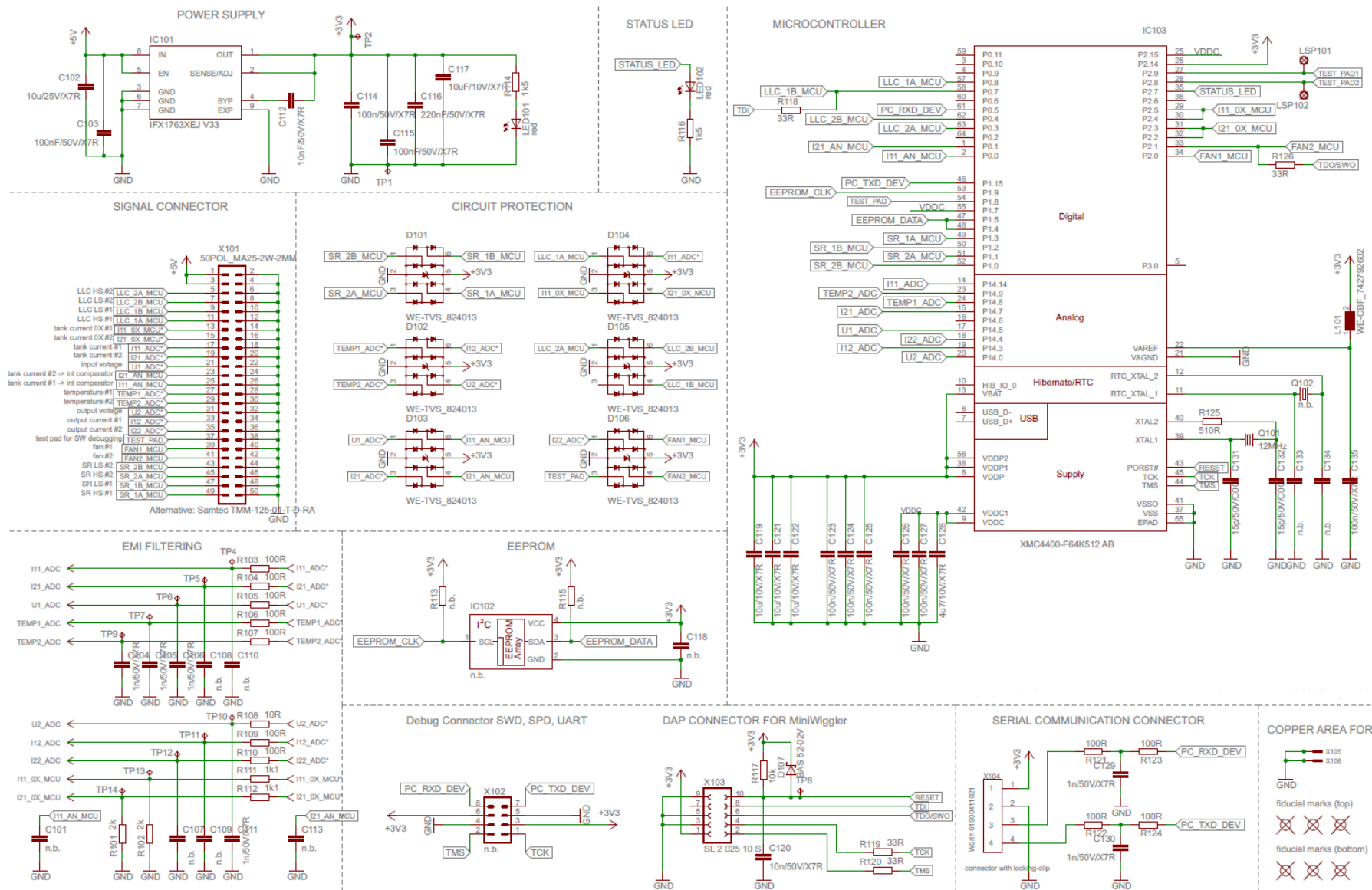
- > Low noise down to 30  $\mu$ VRMS (BW=10 Hz to 100 kHz)
- > Low quiescent current: 30  $\mu$ A
- > Very low Shutdown Current: <1  $\mu$ A
- > No Protection Diodes Needed
- > 500mA Current Capability

## XMC4400-F64K512 AB

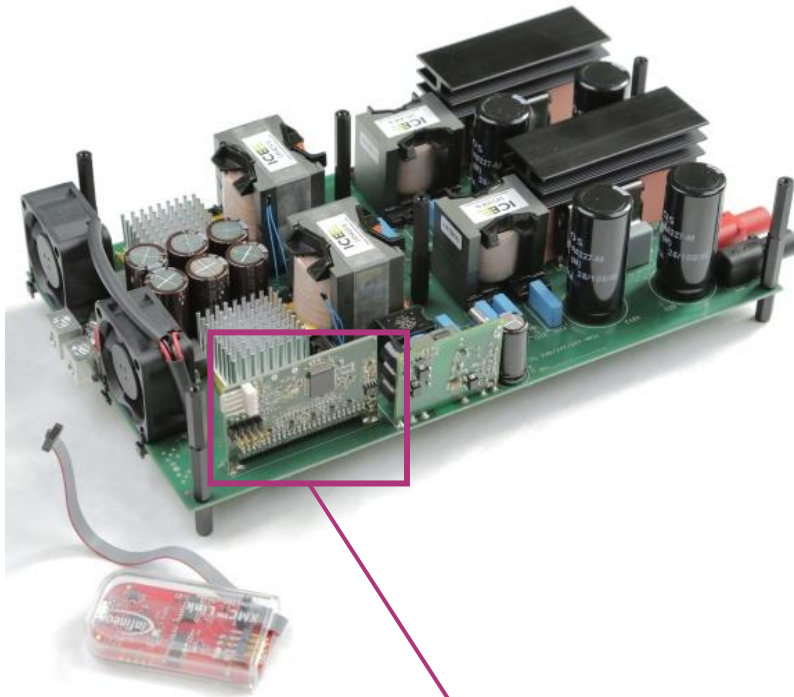
- > ARM® Cortex®-M4, 120 MHz, incl. single cycle DSP MAC and floating point unit (FPU)
- > 8-channel DMA + dedicated DMAs for USB and Ethernet
- > USB 2.0 full-speed on-the-go
- > CPU frequency: 120 MHz
- > eFlash: 256 kB including hardware ECC
- > 80 kB SRAM
- > Package: PG-LQFP-100



# Schematic



# Base board EVAL\_3KW\_2LLC\_xx with control card KIT\_3KW\_2LLC\_DI\_CTRL



**Digital control card:**  
KIT\_3KW\_2LLC\_DI\_CTRL

## Ordering code of the main board:

EVAL\_3KW\_2LLC\_C7  
EVAL\_3KW\_2LLC\_P7  
EVAL\_3KW\_2LLC\_CFD7

Infineon's **3KW 2LLC** boards showcase how to design a half-bridge LLC stage of a server SMPS with the target to meet 80+ Titanium standard efficiency requirements. The **KIT\_3KW\_2LLC\_DI\_CTRL** can be used with any of Infineon's EVAL\_3KW\_2LLC\_XX boards, replacing the original by that 1:1 card.

## Application note and general description:

- › [Evaluation board EVAL 3KW 2LLC C7](#)
- › [General description EVAL 3KW 2LLC](#)



## Technical Material

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

- > Evaluation boards
  - [EVAL\\_3KW\\_2LLC\\_C7](#)
  - [EVAL\\_3KW\\_2LLC\\_P7](#)

## 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 homepage. At the top left is the Infineon logo. The navigation menu includes 'Products', 'Applications', 'Tools' (annotated with a red box and '3'), 'About Infineon', and 'Careers'. On the right, there are links for 'Newsletter' (annotated with '1'), 'Contact', 'Where to Buy' (annotated with '2'), 'English', and 'Login'. A search bar is also present. The main banner features a city skyline at night with the word 'Lighting' in large text. Below it, a headline reads 'New LED controller enables low-wattage luminaire designs August 26th 17:00 CEST' with a 'Register Now!' button. On the right side of the page, there is a vertical list of four items: 'Subscribe to Newsletter' (annotated with '1'), 'Where to Buy' (annotated with '2'), 'Tools, Finders and Selectors' (annotated with '3'), and 'Support' (annotated with '4').

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- **Power Overview**
  - Power MOSFET
  - IGBT
  - Smart Low-Side & High-Side Switches
  - Linear Voltage Regulator
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