Hochschule Konstanz
Technik, Wirtschaft und Gestaltung

HTWG Konstanz

Faculty of Electrical Engineering and Information Technology

Power Electronics

Reverse Engineering of an Active Clamp Flyback Demonstration Board

Author: Fabian Zaske
Student ID: 302871
Degree Program: Electrical Systems Engineering (EIM)
Supervisor: Riccardo Tinivella
Date: January 9, 2026

Abstract

Hello, here is some text without a meaning. This text should show what a printed text will look like at this place. If you read this text, you will get no information. Really? Is there no information? Is there a difference between this text and some nonsense like “Huardest gefburn”? Kjift – not at all! A blind text like this gives you information about the selected font, how the letters are written and an impression of the look. This text should contain all letters of the alphabet and it should be written in of the original language. There is no need for special content, but the length of words should match the language.

Contents

1 Board Specifications

Topology: Active Clamp Flyback

Input voltage range: 90–264VAC, 47–63Hz (typ. 230VAC)

Output voltages: Selectable 5, 9, 12, 15, 20VDC

Switching frequency: Up to 500kHz

Main power switches: GaN transistors

Magnetic components: Transformer

Main capacitors:
- Input: ∼120µF
- Output: $2 \times 330\,\mu\text{F} + 3 \times 22\,\mu\text{F}$

clamp networks: active clamping

SR Controller: SRK1004

References

[1] A. Author, *Title of the Book*, Publisher, Year.

[2] B. Author, "Title of the Paper," *Journal Name*, Year.