



Single Board with Two Devices BMA8420 and TAA3033

RDA8420TEIS0

Preproduction

This page contains information on a preproduction product. Specifications and information herein are subject to change without notice. For additional information please contact your sales representative.

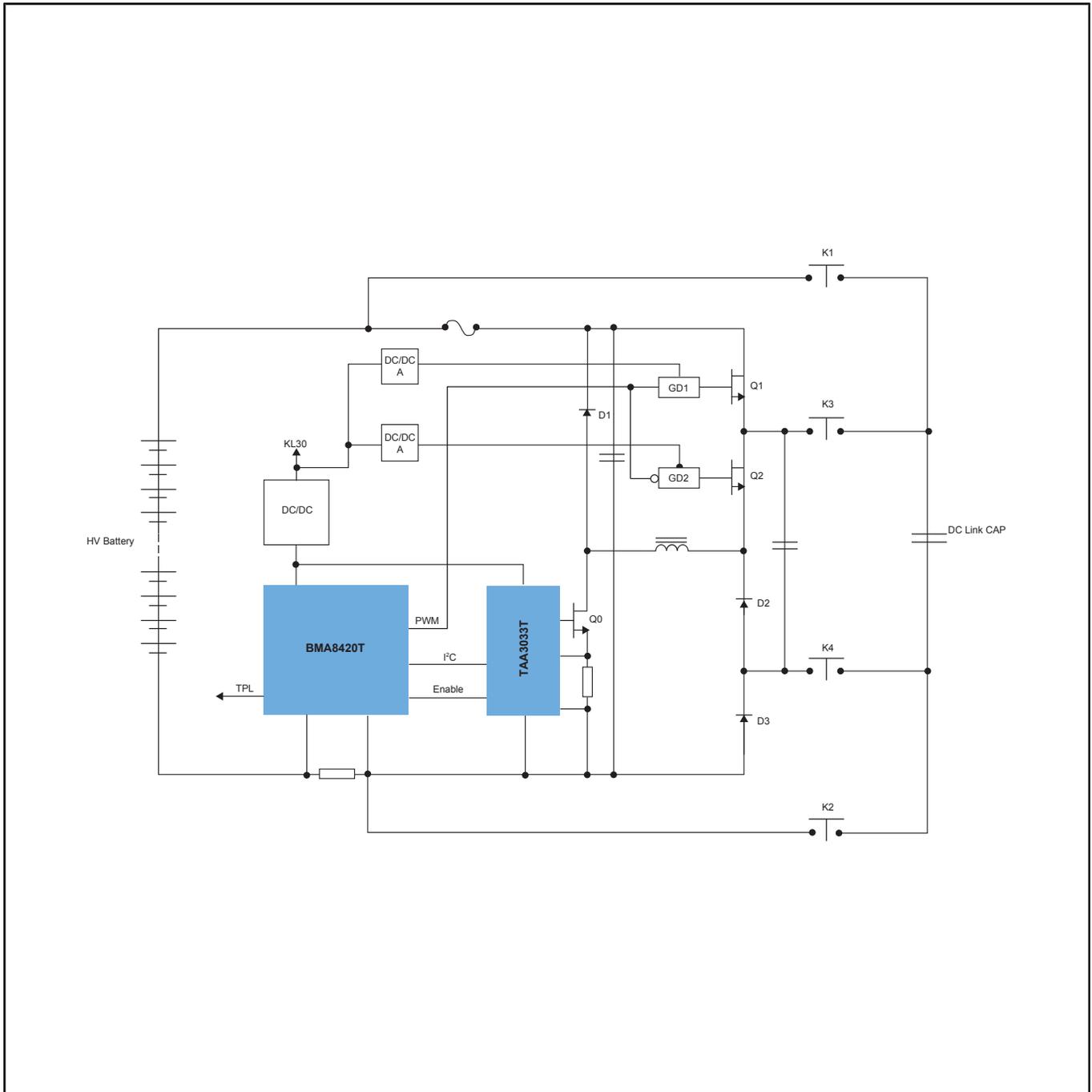
Last Updated: Dec 5, 2025

The RDA8420TEIS0 is a single board with two devices capable of electrochemical impedance spectroscopy (EIS)—using the BMA8420 and TAA3033. This board uses the DC-link capacitor as a reservoir for storing and sourcing the energy for EIS.

The advantage of using the DC-link capacitor is that it provides an EIS solution solely within the battery management system (BMS), eliminating the need for the onboard charger and the traction inverter. The EIS excitation frequency is determined by the BMA8420 controller and is applied to the gate drivers on the board.

The current running to and from the DC-link capacitor is regulated by the TAA3033 controller. The sense resistor defines the amplitude of the excitation current.

RDA8420TEIS0 Block Diagram



View additional information for [Single Board with Two Devices BMA8420 and TAA3033](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.