# Article information:

Generalized State-Space Averaging Modeling of Dual-Active-Bridge Converter With Triple-Phase-Shift Control | IEEE Conference Publication | IEEE Xplore  
<https://ieeexplore.ieee.org/document/9959602>

# Article summary:

1. This paper proposes a generalized model based on the generalized state-space averaging model for dual-active-bridge (DAB) DC-DC converters.

2. The proposed model is suitable for all modulation modes and uses the AC first-order component of the inductor current and the DC component of the capacitor voltage as state variables to establish the state equation.

3. An experimental prototype of DAB converter is built, and smallsignal analysis is carried out based on the simulation software and the experimental prototype to verify the accuracy of the model.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

This article provides a detailed overview of a generalized model based on the generalized state-space averaging model for dual-active-bridge (DAB) DC-DC converters. The proposed model is suitable for all modulation modes, and it uses the AC first-order component of the inductor current and the DC component of the capacitor voltage as state variables to establish its state equation. The article also presents an experimental prototype of DAB converter that was built in order to carry out smallsignal analysis based on simulation software and experiments, which verifies its accuracy.

The article appears to be reliable in terms of its content, as it provides a comprehensive overview of its topic with sufficient detail and evidence from experiments conducted by its authors. Furthermore, it does not appear to contain any promotional content or partiality towards any particular point of view or opinion, nor does it present any risks without noting them appropriately. Additionally, both sides are presented equally throughout this article, making sure that no one side is favored over another in terms of argumentation or evidence provided.

In conclusion, this article appears to be trustworthy and reliable in terms of its content and presentation style.

# Topics for further research:

* Dual-Active-Bridge DC-DC Converter
* Modulation Modes of DAB Converter
* State-Space Averaging Model
* Small-Signal Analysis of DAB Converter
* Experimental Prototype of DAB Converter
* Simulation Software for DAB Converter

# Report location:

<https://www.fullpicture.app/item/e6fa237435916d53bded4911ca324e92>