

11.09.2024

Subject: Response to Revision of TPEL-Letter-2024-06-0321.R1

Dear Dr. Vivek Agarwal

Thank you for your letter and the opportunity to revise our paper titled "Narrowband and Wideband Dual-Mode Wireless Power Transfer System with a Single Transmitter". The revisions offered by the reviewers have been helpful, and we also appreciate your insightful comments. The letter has been improved by the reviewers' comments. We have included the response to the reviewer's comments immediately after this letter. The modifications and additions are highlighted in the main text. We deeply appreciate your consideration of our manuscript.

Kind Regards

Assoc. Prof. Ozan Keysan

Reviewer 1:

This is a interesting topic,some issue should be considered.

- **Reviewer Comment:** 1.The advantages of dual mode transfer is never presented well. plz improve it
- **Response:** Thank you for your comment. The introduction part is expanded now to show the advantages of dual-mode WPT systems.
- **Reviewer Comment 2** Actually, for dual mode transfer, the ZVS mayb lost, plz give discussion for it.
- **Response:** Thank you for your comment. You are correct that ZVS is not ensured in dual-mode WPT systems. However, a partial ZVS can be achieved, which depends on operating points (the current magnitudes and frequencies). A discussion about ZVS (Section III.E) has been added now.
- **Reviewer Comment 3.** the efficiency analysis should be discussed as well. how to get efficiency, Powerless Fractional-Order Tuning Wireless Power Transfer System with Zero Phase Angle Input". IEEE Transactions on Circuits and Systems I: Regular Papers, DOI: 10.1109/TCSI.2024.3404647.
- **Response:** Thank you for your comment. The efficiency analysis for dual-receivers and comparison with the conventional WPT system has been added now in Section III.F. The optimization of the coils and compensation circuits might improve the efficiency, and selecting power devices and operating frequencies also have a significant impact on the efficiency.

Reviewer 2:

- **Reviewer Comment:** All my concerns have been addressed. Good work.
- **Response:** Thank you for letting us improve the paper with your previous feedback.

Reviewer 3:

- **Reviewer Comment:** My comments have been properly addressed. I don't have further comment.
- **Response:** Thank you for letting us improve the paper with your previous feedback.