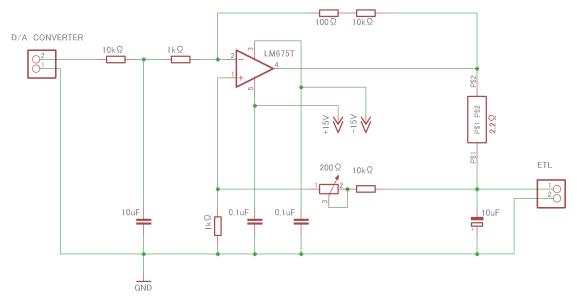
## **Speeded-Up Focus Control of Electrically Tunable Lens by Sparse Optimization**

Daisuke Iwai $^{1,*,+}$ , Hidetoshi Izawa $^{1,+}$ , Kenji Kashima $^{2,+}$ , Tatsuyuki Ueda $^1$ , and Kosuke Sato $^1$ 

## **Supplementary Material**



**Figure 1.** The diagram of the custom amplifier circuit.

<sup>&</sup>lt;sup>1</sup>Osaka University, Graduate School of Engineering Science, Toyonaka, 560-8531, Japan

<sup>&</sup>lt;sup>2</sup>Kyoto University, Graduate School of Informatics, Kyoto, 606-8501, Japan

<sup>\*</sup>daisuke.iwai@sys.es.osaka-u.ac.jp

<sup>\*</sup>these authors contributed equally to this work