

# License agreement for usage of the SI/PI-Database

SI/PI-Database  
Institut für Theoretische Elektrotechnik  
Hamburg University of Technology (TUHH)

September 30, 2026

The SI/PI-Database is a collection of printed circuit board based structures which represent different electromagnetic aspects for signal integrity and power integrity applications. The structures have different components and interconnecting elements e.g. vias, via-arrays, power, ground planes. Each structure contains many variations with the according simulation results. If not stated otherwise in the provided detailed description, all structures were simulated with a physics-based approach developed by TUHH.

The SI/PI-Database may be used free of charge as long as the following terms and conditions are agreed upon. By using the data the user agrees that the following terms and conditions are being met:

1. The SI/PI-Database and its documentation (manual, examples and alike) are solely owned and distributed by the Institut für Theoretische Elektrotechnik, Hamburg University of Technology (TUHH), Hamburg, Germany. It is not allowed to distribute, sell, share, or make available any part of the data or the documentation to third parties.
2. The SI/PI-Database may only be used for purposes that are strictly non-armaments related and in general only directed to improve science, technology and their appropriate application for the benefit of humanity. Any commercial usage on a for-profit basis, or for armaments related purposes are not allowed.
3. The SI/PI-Database may be used within the same department / group as often as wanted. Any distribution beyond the same department or group is not allowed. Especially it is forbidden to host the database in the form of a web service or internet platform.
4. The SI/PI-Database is not free of errors nor does the Institut für Theoretische Elektrotechnik guarantee that its data is correct. Every user is responsible

for carefully checking the validity of SI/PI-Database data. The Institut für Theoretische Elektrotechnik cannot be held responsible for any consequences or conclusions from the data of the SI/PI-Database. If the user becomes aware of incomplete or unfeasible data the Institut für Theoretische Elektrotechnik should be notified.

5. All users agree to be listed by department/group/institute name, and name of university/company/institution on our SI/PI-Database. For this purpose the name, e-mail address, affiliation and department will be stored.

6. When data from the SI/PI-Database is used the following reference has to be given: M. Schierholz, A. Sanchez-Masis, A. Carmona-Cruz, X. Duan, K. Roy, C. Yang, R. Rimolo-Donadio, and C. Schuster, “SI/PI-database of PCB based interconnects for machine learning applications,” *IEEE Access*, vol. 9, pp. 34 423–34 432, Feb. 2021 [1]. In addition if a dataset was created in a publication by the Institut für Theoretische Elektrotechnik, the corresponding reference also has to be used, as provided in the detailed description of the respective dataset.

7. All users agree that it is their own responsibility to check the data of the SI/PI-Database that has been provided to them to be free of any virus malware or alike before using it and inform the Institut für Theoretische Elektrotechnik if there are any problems. The Institut für Theoretische Elektrotechnik is taking precautions but cannot guarantee for the integrity of the data.

## References

- [1] M. Schierholz, A. Sanchez-Masis, A. Carmona-Cruz, X. Duan, K. Roy, C. Yang, R. Rimolo-Donadio, and C. Schuster, “SI/PI-Database of PCB-Based Interconnects for Machine Learning Applications,” *IEEE Access*, vol. 9, pp. 34 423–34 432, Feb. 2021.