License agreement for usage of the EMC/EMI-Database

EMC/EMI-Database
Institut für Theoretische Elektrotechnik
Hamburg University of Technology (TUHH)

November 11, 2026

The EMC/EMI-Database is a collection of frequency-domain data of physics-based electromagnetic simulations (and measurements at a later time) of cables and connectors, PCBs, packages, and components like common-mode chokes and filters that are relevant for the assessment of electromagnetic compatibility and/or electromagentic interference of electronic products. The database has been designed in a similar fashion as the SI/PI-Database and is organized corresponding to the hierarchical level at which simulations took place: material, component, subsystem, system, or product level.

The EMC/EMI-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 EMC/EMI-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 EMC/EMI-Database may only be used for purposes that are strictly nonarmaments 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 EMC/EMI-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 EMC/EMI-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 EMC/EMI-Database data. The Institut für Theoretische Elektrotechnik cannot be held responsible for any consequences or conclusions from the data of the EMC/EMI-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 EMC/EMI-Database. For this purpose the name, e-mail address, affiliation and department will be stored.

6. When data from the EMC/EMI-Database is used the references:

M. Kvizhinadze, N. Talibzade, C. Yang, M. Mnich, and C. Schuster, "Optimization of Modal Reflection Parameters of PCB Connector and Common-Mode Choke Using Gaussian Process Regression and Segmentation," in 2026 International Symposium on Electromagnetic Compatibility - EMC Europe, Prague, Czech Republic, 2026 [1]

and

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 or Machine Learning Applications," in IEEE Access, vol. 9, pp. 34 423-34 432, Feb. 2021 [2]

have to be given.

7. All users agree that it is their own responsibility to check the data of the EMC/EMI-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.

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References

[1] M. Kvizhinadze, N. Talibzade, C. Yang, M. Mnich, and C. Schuster, "Optimization of Modal Reflection Parameters of PCB Connector and Common-Mode Choke Using Gaussian Process Regression and Segmentation," in *2026 International Symposium on Electromagnetic Compatibility – EMC Europe*, 2026, pp. 1–6.

[2] C. M. Schierholz, K. Scharff, and C. Schuster, "Evaluation of Neural Networks to Predict Target Impedance Violations of Power Delivery Networks," in *Proceedings IEEE 28th Conf. Electrical Performance Electronic Packaging and Systems EPEPS*, Montreal, CA, Oct. 2019.