## Application Note

schurter.com/emc

Chokes

# SPICE library for common-mode chokes

For simple circuit simulation

To assist in the simulation of circuits, SCHURTER now offers SPICE libraries for common-mode chokes on circuit boards.

#### PRODUCT

The new SPICE library [1] contains simulation models for all common-mode chokes on circuit boards up to a rated current of 10 A. Also included are example circuits with which it is possible to examine the operational properties of various chokes before they are actually used in the circuit.

SPICE models help finding the best product for an application. With the help of simulation, SPICE models can evaluate the behavior of the chokes and also carry out calculations. This approach eliminates or reduces the effort needed to build prototypes and saves time and money.

The library is simply copied into the corresponding directory of the SPICE application. In the circuit diagram of the SPICE application you can select and insert the desired choke from SCHURTER's product range [2]. By clicking the mouse on the component, the desired item number is selected and the simulation is started. In addition, the library contains multiple example circuits for common-mode chokes. This makes it extremely easy to compare the operational properties of various chokes. An analysis of the frequency response and saturation is also possible.

The simulation models have been tested with LTspice [3] but can also be used with other compatible SPICE programs. LTspice is a widely used freeware simulation tool from Linear Technology Corp.

#### DOWNLOADS

SCHURTER SPICE Library [1]: http://www.schurter.ch/en/Documents-References/SPICE-Library SCHURTER Product Range Chokes [2]: http://www.schurter.ch/en/Components/EMC-Products/Suppression-Chokes LTspice Simulation Tool (freeware) [3]: http://www.linear.com/designtools/software/

#### CONTACT

SCHURTER continues to be a progressive innovator and manufacturer of electronic and electrical components worldwide. Our products ensure safe and clean supply of power, while making equipment easy to use. We offer a broad range of standard products including circuit protection, connectors, EMC products, switches and input systems, as well as electronic manufacturing services. Moreover, SCHURTER is ready to work with our customers to meet their application specific requirements, not covered in our standard range. You can rely on SCHURTER's global network of companies and partners to guarantee a high level of local service and product delivery.

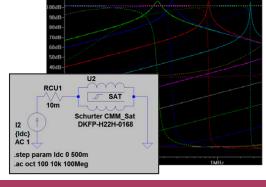
Headquarters Division Components SCHURTER Group

SCHURTER AG Werkhofstrasse 8-12 PO Box 6002 Lucerne Switzerland schurter.com herbert.blum@schurter.ch Contact Asia-Pacific T +65 6291 2111 info@schurter.com.sg

### Europe (Headquarters)

T +41 41 369 31 11 contact@schurter.ch

USA T +1 707 636 3000 info@schurterinc.com





1