

## A practical small-signal equivalent circuit model for RF-MOSFETs valid up to the cut-off frequency

---

*H. Kawano, M. Nishizawa, S. Matsumoto, S. Mitani, M. Tanaka, N. Nakayama, H. Ueno, M. Miura-Mattausch and H.J. Mattausch. "A practical small-signal equivalent circuit model for RF-MOSFETs valid up to the cut-off frequency." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 2121-2124 vol.3.*

The non-quasistatic contribution to the Y-parameters is shown to be much smaller than usually expected. This is especially true for advanced pocket-implant MOSFET technologies being developed for RF devices. Therefore, a simple and practical equivalent-circuit model valid up to the cut-off frequency becomes possible. The small interdependence of the different model elements allows an explicit and sequential extraction of the individual element values.

 [Return to main document.](#)