

Publications within the KKS-Project “Novel Measurement and Modelling Techniques for RF Power Amplifiers”, Dnr 2003/0218. Year 2004-2006.

Rev C

Dissertations

- [D1] D. Wisell, "A Baseband Time Domain Measurement System for Dynamic Characterisation of Power Amplifiers with High Dynamic Range over Large Bandwidth.", Licentiate dissertation, Uppsala: Uppsala University, 2004.
- [D2] M. Isaksson, "Behavioural Modelling of Radio Frequency Power Amplifiers. An Evaluation of Some Block Structure and Neural Network Models." Licentiate dissertation, Uppsala: Uppsala University, 2005.

Journal Papers

- [J1] M. Isaksson, D. Wisell, and D. Rönnow, "Wide-Band Dynamic Modeling of Power Amplifiers Using Radial-Basis Function Neural Networks," *IEEE Trans. Microwave Theory Tech.*, vol. 53, no. 11, pp. 3422-3428, Nov. 2005.
- [J2] M. Isaksson, D. Wisell, and D. Rönnow, "A Comparative Analysis of Behavioral Models for RF Power Amplifiers," *IEEE Trans. Microwave Theory Tech.*, vol. 54, no. 1, pp. 348-359, Jan. 2006.
- [J3] D. Rönnow and M. Isaksson, "Digital predistortion of radio frequency power amplifiers using a Kautz-Volterra model," *Electron. Lett.*, vol. 42, no. 13, pp. 780-782, June 2006.
- [J4] N. Björnsell and P. Händel, "Truncated Gaussian noise in ADC histogram tests," *Measurement*, vol. 40, pp. 36-42, 2007.
- [J5] M. Isaksson and D. Rönnow, "A Parameter-Reduced Volterra Model for Dynamic RF Power Amplifier Modeling based on Orthonormal Basis Functions," *Int. J. RF and Microwave Computer-Aided Eng.* vol. 17, no. 6, pp. 542-551, Nov. 2007.
- [J6] D. Rönnow, D. Wisell, and M. Isaksson, "Three-Tone Characterization of Nonlinear Memory Effects in Radio Frequency Power Amplifiers," *IEEE Trans. Instrum. Meas.*, vol. 56, no. 6, pp. 2646 - 2657, Dec. 2007.

Conference Papers

- [C1] M. Isaksson and D. Wisell, "Extension of the Hammerstein Model for Power Amplifier Applications," in *63rd ARFTG Conf. Dig.*, Fort Worth, TX, USA, 2004, pp. 131-137.
- [C2] Björnsell N, Händel P (2004): "Benefits with Truncated Gaussian Noise in ADC Histogram Tests" Proceedings of IMEKO 04. Vol 2. pp. 787-792. Athens 2004.
- [C3] M. Isaksson, D. Wisell, and D. Rönnow, "Nonlinear Behavioral Modeling of Power Amplifiers Using Radial-Basis Function Neural Networks," in *IEEE MTT-S Int. Microwave Symp. Dig.*, Long Beach, CA, 2005, pp. 1967-1970.
- [C4] Björnsell N, Händel P (2005): "A Statistical Evaluation of ADC Histogram Tests with Arbitrary Stimuli Signal" Proceedings of ADDA 2005 pp 259-264. Limerick 2005.
- [C5] M. Isaksson, D. Wisell, and D. Rönnow, "Behavioural Amplifier Modelling Using Sampled Complex Envelope Measurement Data," in *Proc. Gigahertz 2005*, Uppsala, Sweden, 2005, pp. 213-216.
- [C6] D. Wisell, M. Isaksson, and D. Rönnow, "Validation of Behavioural Power Amplifier Models Using Coherent Averaging," in *Proc. Gigahertz 2005*, Uppsala, Sweden, 2005, pp. 318-321.
- [C7] Björnsell N, Händel P (2005): "On Gaussian and Sine Wave Histogram Tests for Wideband Applications" Proceedings of IMTC 2005. Vol 1. pp 677-682. Ottawa 2005.
- [C8] M. Isaksson and D. Rönnow, "A Kautz-Volterra Behavioral Model for RF Power Amplifiers," in *IEEE MTT-S Int. Microwave Symp. Dig.*, San Francisco, CA, 2006, pp. 485-488.
- [C9] D. Wisell, M. Isaksson, N. Keskitalo, and D. Rönnow, "Wideband characterization of a Doherty amplifier using behavioral modeling," in *67th ARFTG Conf. Dig.*, San Francisco, CA, 2006, pp. 190-199.
- [C10] Niclas Björnsell, Peter Händel "Dynamic behavior models of analog to digital converters aimed for post-correction in wideband applications", IMEKO Workshop on ADC and DAC Modelling and Testing, 2006.
- [C11] N. Björnsell, D. Rönnow, and P. Händel, "Measuring Volterra kernels of analog to digital converters using a stepped three-tone scan," *proc. IMTC 2006* pp 1047-1050, Sorrento, Italy, 2006.
- [C12] Niclas Björnsell and Peter Händel. "Analog-to-Digital Converters for High-Speed Applications" *Proc. GigaHz 2005*, pp. 151-154.
- [C13] Björnsell N., Andersen O., Händel P. (2005): "High Dynamic Range Test-Bed for Characterization of Analog-To-Digital Converters Up To 500 MSPS" Proceedings of IMEKO 2005, Vol 2. pp 601-604, Gdynia/Jurata, Poland 2005.
- [C14] D. Wisell, D. Rönnow, and P. Händel, "A Bandwidth Extension Technique for Dynamic Characterization of Power Amplifiers," presented at IMTC 2006, Sorrento, Italy, 2006.
- [C15] D. Wisell, "Exploring the Sampling Rate Requirements for Behavioural Amplifier Modelling", presented at IMEKO 2006 Conference, Rio de Janeiro, Sept. 2006.
- [C16] D. Wisell and N. Keskitalo, "A Behavioral Power Amplifier Model that Includes the Average Power Level,"

presented at ARFTG 68 2006, CO, Boulder, CO, 2006, pp. 32-41.

Working Papers

[W1] D. Rönnow, "Software for Determining the Third Order Volterra Kernels of Radio Frequency Power Amplifiers,"

Working Paper No 33, University of Gävle, Gävle Sweden, 2005.

Diploma Works

[DW1] Emad Wali Zangana, "Truncated Gaussian Noise in ADC Histogram Tests" Master's Thesis in Telecommunication, University of Gävle , ITB/Electronics, 2004

[DW2] Kaveh Danandeh Dodaran, "DC Specification for ADC's with Varying Sampling Frequency" Master's Thesis in Telecommunication, University of Gävle , ITB/Electronics, 2005

[DW3] Antoine Stephan. "Modelling Analog-to-Digital Converters Using Volterra Filtering" Master's Thesis in Telecommunication, University of Gävle , ITB/Electronics, 2005

[DW4] Mario Mansour , " *Spectrally Pure Signal Generation Based on Spectrum Analyser Measurements Using Pre-distortion* ", Master's Thesis in Telecommunication, University of Gävle , ITB/Electronics, 2006.

[DW5] José Ángel Sánchez Fuentez, " *Simulation of OFDM transmitter - radio channel receiver* ", Master's Thesis in Telecommunication, University of Gävle , ITB/Electronics, 2006

[DW6] A. Eng, "Power Amplifier for GSM EDGE with Variable Bias and Bias Network." Stockholm, Sweden: Royal Institute of Technology, 2006.