Ted Johansson, CURRICULUM VITAE
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In short:

Education: Docent Integrated Circuits and Systems at LiU 2015.
Ph.D. Electronic Devices at LiU, 1998 (industrial Ph.D. student).
M.Sc. EE and Applied Physics (Y-linjen) at LiU, 1985.
Part of the M.Sc. studies at RWTH, Germany.

Profile: Industrial R&D of radio technologies for wireless communication, through own consultant company ”dBm RF Research AB” (since 2008), and before that Infineon and Ericsson:
- CMOS PA design for different wireless communication standards
- RFIC design of circuit blocks for cellular communications systems
- Radio architectures (RF) for cellular basestations
- New circuit technologies, vendor contacts
- Concept and long-term strategy planning in the above areas
- Competitor analysis, including circuit reverse engineering

University senior researcher (adjunct professor) at Linköping University, Sweden:
- research in the areas of CMOS PAs, radio electronics, semiconductor technology for radio circuits.
- senior researcher: conferences, committees, evaluations, peer review for journals, etc.
- government/industry funded projects (currently project leader for WLAN-related project with two companies, funded by VINNOVA).
- undergraduate and graduate teaching in the areas of radio frequency circuit and systems design.
- Ph.D. student supervision

In the last years, the university work has taken over most of my work time, currently positions as adjunct professor (+research projects + teaching = 50-70 %) in Integrated Circuits and Systems group at Linköping University. The research work is focused on integrated PA design (CMOS), ultra low-noise LNAs, low-power radio design, and future radio circuit architectures (SDR), all areas with focus on cellular communication.
During 2015, I started to do teaching in courses for undergraduate and Ph.D. level, and in Dec 2015 I became Docent (the second highest grade in the Swedish academic system)

Since 2008, I have also been working through my own company dBm RF Research AB.

During 2008-2011, I was a full-time consultant with Huawei Technologies Sweden AB, Kista: RF-ASIC design for macro basestations, future circuit technologies, future basestation RF architectures (macro to femto), and RF-MEMS for basestations.

Until late 2007, I was with Infineon Technologies Sweden AB, Kista, working on CMOS concept and circuit design for cordless phones, reverse engineering of mobile phone circuits, and EU-related R&D projects, and before that (-2002) Ericsson Microelectronics working on various semiconductor technologies for mobile communications (process and device development).

Over the years, I have been doing BiCMOS and CMOS design work in the following nodes and suppliers: 28 nm bulk (TSMC), 28 nm SOI (STM), 65nm (GF, IFX, STM), 0.13um (IFX), 0.18 um (IBM), 0.25um (Ericsson MIC), 0.35 um (IBM, AMS), 0.5um (Ericsson MIC).

PROFESSIONAL & ACADEMIC BACKGROUND

- Senior Engineer, consultant (full-time 2008-2011, part time now).
- Adjunct professor + research + teaching, Integrated Circuits and Systems group (formerly Electronic Devices), Linköping University, since 2009.

- Before that, I held various specialist (Expert/Principal) and project management positions within microelectronics and telecom industry R&D.
- Concept and design of circuits for cellular basestations.
- New radio architectures for cellular basestations.
- Design of Integrated Power Amplifiers in various bipolar and CMOS technologies for wireless communication standards between 700 and 2800 MHz.
- Development of several IC and discrete technologies for telecommunication purposes, especially RF-power bipolar and LDMOS technologies, and RF-BiCMOS.
- Participation and part-management of funded R&D projects on SiGe and SiGe:C RF-bipolar technologies, CMOS-SOI, including RF-BiCMOS on SOI, and high-frequency modules.

- Many evaluations, committees, and review work in the academic society and for the European Commission.

- Author and coauthor of more than 70 journal and conference peer-reviewed papers. Also numerous texts in magazines and applications notes. Author of chapter about SiGe transistors in book.
- Holder of 40 patents. Finalist 2004 and 2005, Infineon Inventors Award for "Broadest Portfolio".

For the university related activities + list of publications and patents, see my univeristy page at liu.se/medarbetare/tedjo76

Professional experience

2016-2018 Work in Vinnova-funded project (partners: Catena Wireless Electronics AB, Sweden Connectivity AB, Linköping University) regarding a new PA architecture for increased efficiency for WLAN.

2015- Teaching (in addition to Adj Prof) at Linköping University
- undergraduate course in Radio Electronics (TSEK02), RFIC design (TSEK03), Transceiver Design (TSEK38), VSLI design (TSEK06)
- graduate courses

2011-2012 Work in Vinnova-funded project (partners: Uppsala University, Nanoradio, Samsung AB, ComHeat AB) regarding use of EDMOS device in 65 nm foundry CMOS. Design of test structures, PA demonstrators for WLAN and cellular, PA measurements, modeling.

2009- **Owner, consulting company "dBm RF Research AB"** (www.dbmrf.se)

2009- **Linköping University**, Sweden, Department of Electrical Engineering, Division of Integrated Circuits and Systems (formerly Electronic Devices).
Adjunct Professor (20%): Integrated Power Amplifier Design, LNA, low-power radio design, future integrated radio architectures.

2008-2011 **Huawei Technologies Sweden AB,** Senior research engineer (consultant), RF-ASIC and IRF Radio groups.

- Concept and design of integrated power amplifier for various telecom applications in basestations and terminals for 3G and 4G applications.
- R&D on Low-Noise Amplifiers for basestations in silicon technologies.
- R&D on RF radio architecture for future integrated basestation circuits.
- RF and IF component technologies for basestations, also including filters and RF-MEMS.
- Long-term strategy work in the fields above, including university cooperation work.

2005-09 **Owner, consulting company "Ted Johansson Halvledarkonsult"** (enskild firma)

2002-07 **Infineon Technologies Nordic AB**
2002-2004: *Principal* position in Fore-Front Innovations and Concept Engineering groups.

- Technology Strategist, RF-bipolar, RF-BiCMOS and RF-CMOS technology.
- Reverse Engineering and Process Assessments.
- Participation and part-management of funded EU project

CMOS-SOI, including RF-BiCMOS on SOI, RF passives etc.
- Process adaptations of LDMOS-IC and smart-power processes to 0.25 um BiCMOS fabrication line.

2005- : *Senior Concept Engineer*
- Concept and Design of integrated CMOS power amplifiers for business area Connectivity (cordless/DECT, WLAN, Bluetooth etc.): 0.13 um CMOS amplifier (class AB) for DECT, 65 nm WLAN-PA (class AB), 130 nm switched PA for ISM and DECT (class E).
- Participation in EU Medea+ funded project HIMISSION, headed by Ericsson AB. PA design with Chalmers Technical University, and CMOS process foundry services for the project.
- Reverse Engineering, Process Assessments, Cost Engineering.

1999– 2002 **Ericsson Microelectronics AB**
Expert position at RF-IC Product Line.
- Development of 0.25 um RF-BiCMOS platform.
- Development of integrated PAs for DECT and GSM.
- Participation in and part-management of funded EU projects on SiGe and SiGe:C RF-bipolar technology

1995 - 1998 **Ericsson Components AB**
Process engineer and project leader for process and product development at RF-Power Product Line.
- Development of bipolar RF-power technologies.
- Participation in and part-management of funded EU projects on SiGe technology for RF-power.

1989 – 1995 **Ericsson Components AB**
Process engineer and project leader for process and product development, Process and Device Technology Group.
- Development of bipolar RF-power technologies for base stations.
- Development of low-voltage MOS RF power transistors for handheld applications.

(NB. All Ericsson and Infineon employments were at the same location – name, owner, and focus of the company changed.)

1985 - 1989 **Swedish Institute of Microwave Technology/ Microelectronics**
Research Engineer. Applied research in the areas of silicon MOS processing and devices.

1981-1982 **National Defense Research Institute** (“FOA3”, Linköping, now FOI).
12 months internship at a department that studied radiation effects on semiconductors.

Degrees

2015	Docent, University of Linköping, Sweden.
1998	Ph.D., Electronic Devices, Department of Physics and Measurement Technology, University of Linköping, Sweden.
1993	Licentiate of Engineering, Electronic Devices, Department of Physics and Measurement Technology, University of Linköping, Sweden.
1985	Master of Science, Applied Physics and Electric Engineering, University of Linköping, Sweden. (1983-84: part of studies and Master Thesis at RWTH, Aachen, Germany.)

Supervised and advised doctoral dissertations and other academic theses

- Ph.D. thesis supervisor at LiU:
  M. F. U. Haque (with Prof. Dake Liu): co supervisor 2013-2015, main supervisor 2015-2017, dissertation 2017-02-23.
  M. T. Pasha (with Prof. Mark Vesterbacka), co supervisor 2014-2015, main supervisot 201x-2018, dissertation planned for 2018-11.

- Ph.D. review committee:
  Juan Cardenas, KTH (1998)
  Julius Hållstedt, KTH (2007)
  Liang Rong, KTH (2013)
  Mustafa Özen, CTH (2014)
  Klas Eriksson, CTH (2015)
  Yu Yan, CTH (2015)
  Maryam Olyaei, KTH (2015)
  Tobias Tired, LTH (2016)
  Sebastian Gustafsson, CTH (2018)

- Ph.D. thesis international expert reviewer:
  Arshad, NED University of Engineering & Technology, Pakistan, 2017.

- Supported and co-mentored several Ph.D. students, resulting in common publications, at KTH, LiU, UU, CTH, HiG (all Sweden), and CIS, Stanford University (USA).

- Supervisor and/or examiner of at least 35 Master Thesis students connected to LiU, KTH, UU and HiG.

Scientific expert positions

- Peer reviewer for Journals:
  - Analog Integrated Circuits & Signal Processing (ALOG)
  - IEEE Electron Device Letters (EDL)
  - IEEE Transactions on Circuits and Systems (TCAS-I)
  - IEEE Transactions on Circuits and Systems (TCAS-II)
  - IEEE Transactions on Microwave Theory and Techniques (TMTT)
  - IEEE Sensors Journal (JSEN)
  - IET Circuits, Devices and Systems (CDS)
  - International Journal of Electronics (IJE)
  - International Journal of Infrared, Millimeter, and Terahertz Waves (IJIM)
  - Journal of Electronic Testing (JETT)
  - Microelectronics Reliability (MR)
  - Recent advances in Electrical and Electronics Engineering

- Peer reviewer for Conferences:
  - NORCAS 15, 17, 18

- Evaluator, external expert of funding applications, Academy of Finland: 2012 (two different calls), 2019.
- Evaluator, Electric Engineering education in Sweden. Swedish National Agency for Higher Education (Högskoleverket, UK-ämbetet), (2012-2013).
- Evaluator, external expert research programs, Swedish Foundation for Strategic Research (SSF) (2014).
- Evaluator, external expert funding applications, Austrian Science Fund (FWF) (2015).
- Evaluator, external expert, Adjunct Professor, Halmstad University (2015).
- Evaluator, expert, Space 2016, Horizon2020, European Commission (2016).

- Organizing committee for national scientific conference SSoCC (2010-2015).

Invited talks

- IECC 2017 (Karachi, Pakistan), Keynote talk: ”The 28 nm CMOS Power Amplifier”.
- 2018-02-27, ”Power-efficient CMOS power amplifiers”

Professional organizations

- IEEE Member 1990, Senior Member 1996.
  - Member EDS, SSC and MTTS societies.
  - Vice chair Swedish IEEE EDS chapter 2000-2012.
  - Chair Swedish IEEE SSCS/CAS joint chapter 2012-2014, vice chair 2015-
- Member SER (Svenska Elektro- och Dataingenjörers Riksförening) since 2011, board member 2015-2016.

R & D Administration

- 2005 – 2008 EU Medea+
  Infineon project leader for HIMISSION, headed by Ericsson AB.
- 1997 – 2001 Foundation for Strategic Research (SSF), Sweden.
  Coordinator for research program "HF-BIP" (Swedish universities).

Miscellaneous

Languages: Swedish – native, English – perfect, German – very good.

Excellent knowledge of RF-IC design tools Cadence (Virtuoso, Spectre, Assura, Calibre), ADS, GoldenGate and related tools for RF-IC circuit design and manufacturing.

Knowledge of MATLAB for technical computing.

Excellent knowledge on admin level for Linux systems and design tools Cadence, ADS, and GoldenGate.

Some knowledge of RF design tools Microwave Office (NI/AWR), HFSS (Ansys), and SystemVue (Keysight).

I am generally very good with computers and fixing problems – Windows, Mac, and Linux.

Ted Johansson, LIST OF PUBLICATIONS AND PATENTS

updated 2019-04-11

1 REGULAR PAPERS (peer-reviewed)

1. H. Norström, S. Nygren, T. Johansson, R. Buchta, M. Östling, A. Lindberg, U. Gustafsson, C. S. Petersson, "A Refined Polycide Gate Process With Silicided Diffusions for Submicron MOS Applications", J. Electrochem. Soc., 136, 805 (1989). doi:10.1149/1.2096747

2. M. Hammar, S. L. Zhang, R. Buchta, T. Johansson, "Investigation of CVD Tungsten and Tungsten Silicide as Contact to n+ and p+ Silicon Areas", Thin Solid Films, 185, 9 (1990).

3. T. Johansson, K. Jarl, M. Willander, "Power Amplifier for Ultra High Frequency using Conventional Silicon NMOS Technology", Solid State Electronics, 35, 213 (1992). doi:10.1016/0038-1101(92)90063-I

4. H. Norström, T. Johansson, J. Vanhellemont, K. Maex, "A Study of High Dose As and BF2 Implantations into SIMOX Materials". Semiconductor Science and Technology, 8, 630 (1993). doi: 10.1088/0268-1242/8/5/002

5. T. Johansson, A. Litwin, A. Ouacha, M. Willander, U. Dahlgren, "Improved UHF Power Transistors in MOSFET IC-Technology for Portable Radio Applications", Solid State Electronics, 37, 1983 (1994). doi:10.1016/0038-1101(94)90066-3

6. J. Jang, E. C. Kan, T. Arnborg, T. Johansson, R. W. Dutton, "Characterization of RF Power BJT and Improvement of Thermal Stability with Non Linear Base Ballasting", IEEE Journal of Solid-State Circuits, 33, 1428 (1998). doi:10.1109/4.711343

7. T. Johansson, T. Arnborg, "A novel approach to 3-D modeling of packaged RF-Power transistors", IEEE Transactions on Microwave Theory and Techniques, 47, 760 (1999). doi:10.1109/22.769348

8. T. Johansson, J. Söderström, L. F. Eastman, D. W. Woodard, "A study of L-band GaAlAs/GaAs HBTs for high-voltage RF-Power", International Journal of Electronics, 87, 497 (2000). doi: 10.1080/002072100132147

9. B. G. Malm, T. Johansson, T. Arnborg, H. Norström, J. V. Grahn, M.

Östling, "Implanted Collector Profile Optimization in a SiGe HBT Process", Solid State Electronics, 45, 399 (2001). doi:10.1016/S0038-1101(01)00063-6

10. T. Johansson, W.-X. Ni, "Feasibility study of 25 V SiGe RF-Power Transistors for cellular base station output amplifiers", Materials Science and Engineering B89 (2002), p. 88. doi:10.1016/S0921-5107(01)00763-2

11. M. Forsberg, T. Johansson, W. Liu, M. Vellaikal, "A Shallow and Deep Trench Isolation Module for RF BiCMOS", J. Electrochem. Soc., 151 (12) G839-G846 (2004). doi:10.1149/1.1811596

12. B. G. Malm, E. Haralson, T. Johansson, M. Östling, "Self-Heating Effects in a BiCMOS on SOI Technology for RFIC Applications", Trans. El. Dev., Vol. 52, No. 7, p. 1423, 2005. doi:10.1109/TED.2005.850634

13. T. Johansson, B.G. Malm, H. Norström, U. Smith, M. Östling, "Influence of SOI-generated stress on BiCMOS performance", Solid-State Electronics, 50, 935 (2006). doi:10.1016/j.sse.2006.04.034

14. H. Norström, T. Johansson, "Formation of a buried collector layer in RF-bipolar devices by ion implantation", Microelectronics Journal, Vol. 37, No. 11, Nov. 2006, p. 1366. doi: 0.1016/j.mejo.2006.06.009

15. A. Kashif, T. Johansson, C. Svensson, S. Azam, T. Arnborg, Q. Wahab, "Influence of interface state charges on RF performance of LDMOS transistor", Solid-State Electronics, 52, 1099 (2008). doi: 10.1016/j.sse.2008.04.001

16. M. Ferndahl, T. Johansson, H. Zirath, "Design and Evaluation of 20 GHz Power Amplifiers in 130 nm CMOS", International Journal of Microwave and Wireless Technologies, 2009, 1(4), 301–307. doi: 10.1017/S1759078709990316

17. T. Johansson, N. Soolati, J. Fritzin, "A High-Linearity SiGe RF Power Amplifier for 3G and 4G Small Basestations", International Journal of Electronics, Vol. 99, Issue 8, pp. 1145-1153, 2012. doi:10.1080/00207217.2011.651695

18. T. Johansson and J. Fritzin, "A Review of Watt-level CMOS RF power amplifiers", IEEE Transactions on Microwave Theory and Techniques, Vol. 62, Issue 1, pp. 111-124, 2014.

doi:10.1109/TMTT.2013.2292608

19. M. F. U. Haque, M. T. Pasha, T. Johansson, "Aliasing-Compensated Polar PWM Transmitter", IEEE Transactions on Circuits and Systems-II: Express Briefs, Vol. 64, Issue 8, pp. 912-916, 2017.
doi: 10.1109/TCSII.2016.2614433

20. M. T. Pasha, M. F. U. Haque, J. Ahmad, T. Johansson, "A Modified All-Digital Polar PWM Transmitter", IEEE Transactions on Circuits and Systems-I, Vol. 65, Issue 2, pp. 758-768, 2018.
doi: 10.1109/TCSI.2017.2725980

21. M. T. Pasha, M. F. U. Haque, J. Ahmad, T. Johansson, "An All-digital PWM Transmitter with Enhanced Phase Resolution", IEEE Transactions on Circuits and Systems-II: Express Briefs, Vol. 65, Issue 11, pp. 1634-1638, 2018.
doi: 10.1109/TCSII.2017.2766099

22. M. F. U. Haque, M. T. Pasha, T. Johansson, "A Power-Efficient Aliasing-Free PWM Transmitter", accepted for publication in IET Circuits, Devices & Systems, 2018.
doi: 10.1049/iet-cds.2018.5011

2 CONFERENCE PAPERS (peer-reviewed)

1. M. Offenberg, T. Johannson, M. Aslam, P. Balk, "Electron Traps in B+ -implanted SiO2", Proceedings of ESSDERC 1984, p. 240, Lille, France, 1984. doi:10.1016/0378-4363(85)90577-7

2. U. Gustafsson, T. Johansson, R. Buchta, H. Norström, "Process and Device Characterization of a 1 um NMOS Technology", Proceedings of the International Seminar on Technology for High Speed Signal Processing, p. 43, Trondheim, Norway, 1985.

3. T. Johansson, U. Gustafsson, A. Lindberg, P. Dahl, "A Concept for a One Micron NMOS Process", Proceedings of the 12th Nordic Semiconductor Meeting, Jevnaker, Norway, 1986.

4. S. L. Zhang, R. Buchta, T. Johansson, H. Norström, U. Wennström, "LPCVD Tungsten Filled Vias for Multilayer Metallization", Proceedings of ESSDERC 1987, p. 201, Bologna, Italy, 1987.

5. H. Norström, R. Buchta, A. Lindberg, T. Johansson, U. Gustafsson, S. Nygren, M. Östling, C. S. Petersson, "A Refined SALICIDE (Self Aligned Silicide) Technology for CMOS-processing", presented at Electrochemical Society Meeting, Philadelphia, Pennsylvania, May 10-15th, 1987.

6. H. Norström, R. Buchta, A. Lindberg, U. Gustafsson, S. Nygren, C. S. Petersson, T. Johansson, M. Östling, "A Refined SALICIDE (Self Aligned Silicide) Technology for CMOS-processing", presented at RVK, Uppsala 1987.

7. T. Johansson, A. Lindberg, H. Norström, R. Buchta, U. Gustafsson, "A Refined Polycide Gate Process for Submicron MOS Applications", Proceedings of the 13th Nordic Semiconductor Meeting, p. 45, Saltsjöbaden, Sweden, 1988.

8. M. Hammar, S. L. Zhang, R. Buchta, T. Johansson, "Investigation of CVD Tungsten and Tungsten Silicide as Contact to n+ and p+ Silicon Areas", Proceedings of the 13th Nordic Semiconductor Meeting, p. 101, Saltsjöbaden, Sweden, 1988.

9. S. L. Zhang, M. Hammar, T. Johansson, R. Buchta, "Properties of WSi2: Ohmic Contact to n+ and p+ Si, Barrier between Al and Si, and Feasibility as First Metal in Multilevel Metallization Processes", ESSDERC 1988, Journal de Physique, Colloque C4, suppl. no 9, p. 171, September 1988. doi:10.1051/jphyscol:1988434

10. T. Johansson, A. Litwin, "Power at Gigahertz Frequency using Silicon NMOS Technology", Proceedings of the 14th Nordic Semiconductor Meeting, p. 395, Aarhus, Denmark, 1990.

11. H. Norström, T. Johansson, J. Vanhellemont, K. Maex, "A Study of High Dose As and BF2 Implantations into SIMOX Materials", Proceedings of the 15th Nordic Semiconductor Meeting, p. 151, Finland, 1992.

12. T. Johansson, L. R. Virtanen and J. M. Gobbi, "UNDERGROUND CAPACITORS", Very Efficient Decoupling For High Performance UHF Signal Processing ICs", Proceedings of EURO-ASIC-94, Paris 1994. doi:10.1109/EDTC.1994.326807

13. J. Jang, E. C. Kan, L, So, R. W. Dutton, T, Johansson, T. Arnborg, "Parasitic Characterization of Radio-Frequency (RF) Circuits Using Mixed-Mode Simulations", Proc. CICC, pp. 445-448, 1996. doi: 10.1109/CICC.1996.510593

14. T. Johansson, S.-H. Hong, Q. Chen, B. Stegring, N. af Ekenstam , "Bipolar RF-Power Transistors for Cellular Base Station Output Amplifiers", GigaHertz 1997 Symposium, Stockholm, 1997.

15. O. Bengtsson, A. Rydberg, Q. Chen, T. Johansson, B. Ahl, K. Wallin, F. Purroy-Martin, "Large-signal characterization and modeling of LDMOS-transistors for RF-power applications", GigaHertz 1997 Symposium, Stockholm 1997.

16. T. Johansson, T. Arnborg, "RF-Power + SEM + JAVA + EM + SPICE = True! A novel approach to 3D modeling of packaged RF-Power transistors", GigaHertz 1997 Symposium, Stockholm, 1997.

17. T. Arnborg, T. Johansson, "3D characterization of RF power transistors", Proc. ICMTS, pp. 131-134, 1999. doi: 10.1109/ICMTS. 1999.766230

18. T. Johansson, O. Bengtsson, E. Nordlander, A. Rydberg, "RF-Power SiGe transistors for cellular base stations: base profile design", RVK99, Karlskrona, Sweden, June 14-17, 1999.

19. O. Bengtsson, T. Johansson, E. Nordlander. A. Rydberg, "Optimization of high-voltage RF power SiGe transistors for cellular applications", Proc. MIA-ME '99. p. III14 -III18, 1999. do:10.1109/ MIAME.1999.827839

20. M. Forsberg, C. Björmander, T. Johansson, T. Ko, W. Liu, M. Vellaikal, A. Cheshire, "Shallow and Deep Trench Isolation for use in RF-Bipolar IC:s", Proc. ESSDERC 2000, p. 212. doi: 10.1109/ESSDERC.2000.194752

21. T. Johansson, W.-X. Ni, "Si/SiGe-heterojunction bipolar power transistors for 25 V cellular base station type of applications", First International Workshop on New Group IV(Si-Ge-C) Semiconductors, Sendai, Japan, Jan. 2001.

22. T. Johansson, W.-X. Ni, "Feasibility study of 25 V SiGe RF-Power Transistors for cellular base station output amplifiers", Second International Conference on Silicon Epitaxy and Heterostructures, Strasbourg, France, Jun. 2001. doi:10.1016/S0921-5107(01)00763-2

23. J. Sjöström, C. Nyström, T. Johansson, T. Arnborg, "Interconnect model for simulation of a low-voltage integrated power amplifier", 15th European Conference on Circuit Theory and Design (ECCTD'01), Espoo, Finland, August 28-31, 2001.

24. T. Johansson, "Wireless-Trench Technology: A new approach to grounding in integrated power amplifiers", GigaHertz 2001 Symposium, Lund, Sweden, Nov. 26-27, 2001.

25. C. Nyström, T. Johansson, "A GSM triple-band power amplifier chip using silicon bipolar RF-IC technology", GigaHertz 2001 Symposium, Lund, Sweden, Nov. 26-27, 2001.

26. U. Hagström, P. Lundin, J. Engvall, T. Johansson, "GSM dual-band power amplifier module using silicon bipolar RF-IC technology", GigaHertz 2001 Symposium, Lund, Sweden, Nov. 26-27, 2001.

27. P. Johansson, T. Johansson, "Wireless-Trench Technology for silicon GSM power amplifiers", WDC2002, London, England, May. 16-17, 2002.

28. J. Pejnefors, T. Johansson, J. Wittborn, A. Santos, H. Norström, U. Smith, A. Cheshire, T. Buschbaum, C. Rosenblad, J. Ramm, "A Self-Aligned Double Poly-Si Process Utilizing Non-Selective Epitaxy of SiGe:C for Intrinsic Base and Poly-SiGe for Extrinsic Base", Proc. ESSDERC 2002, p. 259. doi:10.1109/ESSDERC.2002.194919

29. M. von Hartmann, T. Johansson, B.G. Malm, M. Östling, "Decreased low-frequency noise in polysilicon emitter bipolar transistors by epitaxial regrowth", Proc. 17th International Conference on Noise

and Fluctuations (ICNF), pp. 415-418, 2003.

30. E. Haralson, B.G. Malm, T. Johansson, M. Östling, "Influence of Self Heating in a BiCMOS on SOI Technology", Proceeding of the 34th European Solid-State Device Research conference, 2004 (ESSDERC 2004). 21-23 Sept. 2004, pp. 337-340. doi:10.1109/ESSDER. 2004.1356558

31. T. Arnborg, T. Johansson, A. U. Kashif, Q. Wahab, "A new powerful envelope model for combined system and device level simulation", GigaHertz 2005 Symposium, Nov 8-9 2005, Uppsala, Sweden.

32. T. Arnborg, T. Johansson, "Ultra-high tuning range capacitor", GigaHertz 2005 Symposium, Nov 8-9 2005, Uppsala, Sweden.

33. T. Johansson, B.G. Malm, H. Norström, U. Smith, M. Östling, "Influence of SOI-generated stress on BiCMOS performance", 2005 International Semiconductor Device Research Symposium (ISDRS), Dec 7-9, 2005. doi:10.1109/ISDRS.2005.1596177

34. C. Grewing, S. van Waasen, B. Bokinge, W. Einerman, A. Emericks, R. Engberg, C. Hedenäs, H. Hellberg, M. Hjelm, S. Irmscher, T. Johansson, A-M. Lann, M. Lewis, B. Li, O. Pettersson, W. Simbürger, D. Theil, R. Thüringer, "CMOS Radio with an Integrated 26dBm Power Amplifier for a Complete System-on-Chip Cordless Phone", 2007 IEEE Radio Frequency Integrated Circuits Symposium Honolulu, Hawaii - June 3 - 8, 2007. doi: 10.1109/RFIC. 2007.380840

35. A. Kashif, T. Johansson, C. Svensson, T. Arnborg, Q. Wahab, "Enhancement in Frequency Operation of LDMOS Transistor by Large Signal Physical Simulations", RFMTC07, Gävle, Sweden, Sep 11-12, 2007.

36. O. Pettersson, B. Bokinge, C. Grewing, S. van Waasen, W. Einerman, A. Emericks, R. Engberg, C. Hedenas, H. Hellberg, M. Hjelm, S. Irmscher, T. Johansson, A.-M. Lann, M. Lewis, B. Li, "A Wide Range CMOS Tunable Receiver for Cordless Telephone Applications", International Symposium on Integrated Circuits, ISIC '07, p.104, 26-28 Sept. 2007. doi: 10.1109/ISICIR.2007.4441807

37. N. Zimmermann, T. Johansson, S. Heinen, "Power Amplifiers in 0.13 µm CMOS for DECT: A Comparison Between Two Different Architectures", RFIT 2007, Singapore, Dec 9-11, 2007. doi:10.1109/ RFIT.2007.4443983

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