

**Ted Johansson, LIST OF PUBLICATIONS**

updated 2024-12-29

## 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).  
doi:10.1016/0040-6090(90)90003-V
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 BF<sub>2</sub> 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:10.1016/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  
Also presented as "Papers from CAS Journals" at ISCAS 2018, Florence, Italy, May 27 - Jul 30, 2018.
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", IET Circuits, Devices & Systems, 2019, 13, no. 3, pp. 273-278.  
doi:10.1049/iet-cds.2018.5011
23. T. Johansson, R. Forchheimer and A. Åström, "Low-Power Optical Sensor for Traffic Detection," in IEEE Sensors Letters, vol. 4, no. 5, pp. 1-4, May 2020.  
doi:10.1109/LSENS.2020.2983561
24. T. Johansson, R. Forchheimer and A. Åström, "Improving angle-of-view for a 1-D sensing application by using a 2-D optical sensor in "cylindrical" mode," in IEEE Sensors Letters, vol. 5, no. 10, pp. 1-4, Oct 2021.  
doi:10.1109/LSENS.2021.3115051
25. P. K. B. Rangaiah, J. Engstrand, T. Johansson, M. D. Perez and R. Augustine, "92 Mb/s Fat-Intrabody Communication (Fat-IBC) With Low-Cost WLAN Hardware," in IEEE Transactions on Biomedical Engineering, vol. 71, no. 1, pp. 89-96, Jan. 2024.  
doi:10.1109/TBME.2023.3292405.

26. K. Rajesh, A. Kalaboukhov, Y.-C. Weng, K. Rathod, T. Johansson, A. Lindblad, M. V. Kamalakar, T. Sarkar, "Vacancy engineered nickel ferrite forming-free low-voltage resistive switches for neuromorphic circuits", *ACS Applied Materials & Interfaces*, Vol. 6, pp. 19225-19234, 2024.  
doi:10.1021/acsami.4c01501
27. R. Mehboob, M. F. Ul Haque, T. Malik, T. Johansson, "A novel IFPWM-based All Digital Transmitter architecture and FPGA implementation", *International Journal of Circuit Theory and Applications*, 2024.  
doi:10.1002/cta.4123
28. Yupeng Yang, Mohammad Hadi Khaksaran, Jong Bin An, Hyun Jae Kim, Ted Johansson, Xi Lu, Ilya Sychugov, Apurba Dev, and Shi-Li Zhang, "Phototransistors of Engineered InGaZnO Channel for Specificity Molecular Detection in the Visible Range", *ACS Applied Optical Materials*, 2024.  
doi: 10.1021/acsaom.4c00310

1. M. Offenberg, T. Johannson, M. Aslam, P. Balk, "Electron Traps in B+ -implanted SiO<sub>2</sub>", 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 WS<sub>2</sub>: 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 BF<sub>2</sub> 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. doi: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  $\mu\text{m}$  CMOS for DECT: A Comparison Between Two Different Architectures", RFIT 2007, Singapore, Dec 9-11, 2007. doi:10.1109/RFIT.2007.4443983
- 38.N. Zimmermann, T. Johansson, S. Heinen, "A 27.4 dBm DECT Power

Amplifier for 2.5V Supply in 0.13  $\mu$ m CMOS", SiRF 2008, Orlando, USA, Jan 23-25, 2008. doi:10.1109/SMIC.2008.14

- 39.A. Kashif, T. Johansson, C. Svensson, Q. Wahab, "Optimization of RF LDMOS Transistors by TCAD Simulations", GigaHertz 2008 Symposium, Mar 5-6 2007, Gothenburg, Sweden.
- 40.J. Fritzin, T. Johansson, A. Alvandpour, "A 72.2Mbit/s LC-based Power Amplifier in 65nm CMOS for 2.4GHz 802.11n WLAN", MIXDES'08, Poznań, Poland, Jun 19-21, 2008,
- 41.J. Fritzin, T. Johansson, A. Alvandpour, "Impedance Matching Techniques in 65nm CMOS Power Amplifiers for 2.4GHz 802.11n WLAN", EuMC 2008, Amsterdam, The Netherlands, Oct 27-28, 2008. doi:10.1109/EUMC.2008.4751677
- 42.M. Ferndahl, T. Johansson, H. Zirath, "20 GHz Power Amplifier Design in 130 nm CMOS", EuMIC 2008, Amsterdam, The Netherlands, Oct 27-28, 2008. doi:10.1109/EMICC.2008.4772277
- 43.J. Fritzin, T. Sundström, T. Johansson, A. Alvandpour, "Reliability Study of a Low-Voltage Class-E Power Amplifier in 130nm CMOS", ISCAS 2010, May 30-Jun 2, 2010. doi:10.1109/ISCAS.2010.5537959
- 44.T. Johansson, O. Bengtsson, S. Lotfi, L. Vestling, H. Norström, J. Olsson, C. Nyström, "A +32.8 dBm LDMOS power amplifier for WLAN in 65 nm CMOS technology", presented at EuMIC 2013, Nuremberg, Germany, Oct 7-8, 2013.
- 45.M. F. U. Haque, T. Johansson, D. Liu, "Combined RF and Multilevel PWM Switch Mode Power Amplifier", Norchip 2013, Vilnius, Lithuania, Nov 11-12, 2013. doi:10.1109/NORCHIP.2013.6702010
- 46.T. Johansson, M. Salter, M. Vignetti, "Strategies to Multi-Watt PAs in nanometer CMOS", presented at Gigahertz Symposium 2014, Gothenburg, Sweden, Mar 11-12, 2014.
- 47.M. F. U. Haque, T. Johansson, D. Liu, "Modified Band-limited Pulse-width Modulated Polar Transmitter", presented at ISMOT 2015, Dresden, Germany, Jun 29 - Jul 1, 2015.
- 48.M. F. U. Haque, T. Johansson, D. Liu, "Combined RF and multiphase PWM Transmitter", ECCTD2015, Trondheim, Norway, Aug 24-26, 2015. doi:10.1109/ECCTD.2015.7299999

49. L. Landén, M. B. Hossain, T. Johansson, "On the Design of an Antenna Switch in 28 nm FD-SOI CMOS", presented at Gigahertz 2016 symposium, Linköping, Sweden, Mar 15-16, 2016.
50. M. F. U. Haque, T. Johansson, D. Liu, "Large Dynamic Range PWM Transmitter", presented at Gigahertz 2016 symposium, Linköping, Sweden, Mar 15-16, 2016.
51. T. Johansson, O. Najari, and M. Carlsson, "Linear CMOS-PA design in different 28 nm technologies", presented at Gigahertz 2016 symposium, Linköping, Sweden, Mar 15-16, 2016.
52. O. Morales Chacón, T. Johansson, T. Flink, "The effect of DPD bandwidth limitation on EVM for a 28 nm WLAN 802.11ac transmitter", NORCAS 2017, Linköping, Sweden, Oct 23-25, 2017.  
doi:10.1109/NORCHIP.2017.8124943
53. M. T. Pasha, M. F. U. Haque, J. Ahmad, T. Johansson, "An All-Digital Polar PWM Transmitter", presented at Gigahertz 2018 symposium, Lund, Sweden, May 24-25, 2018.
54. T. Johansson, O. Morales Chacón, T. Flink, "Digital predistortion with bandwidth limitations for a 28 nm WLAN 802.11ac transmitter", presented at Gigahertz 2018 symposium, Lund, Sweden, May 24-25, 2018.
55. M. T. Pasha, M. F. U. Haque, T. Johansson, "A Comparison of Polar and Quadrature RF-PWM", presented at NORCAS 2018, Tallinn, Estonia, Oct 30-31, 2018. doi:10.1109/NORCHIP.2018.8573456
56. T. Johansson, S. Samji, "On the Design of a CMOS-integrated Load Modulated Balanced Amplifier", presented at NORCAS 2020, Oslo, Norway, Oct 27-28, 2020. doi:10.1109/NorCAS51424.2020.9264997
57. T. Johansson, P. Rangaiah, J. Engstrand, M. Perez, and R. Augustine, "Fat-layer intra-body communication", presented at Swedish Microwave Days, Stockholm May 23-25, 2023.
58. J Engstrand, P Rangaiah, T Johansson, MD Perez, R Augustine, "Intrabody Communication Through Fat Tissue for Brain-Machine Interface Applications". presented at Medicinteknikdagarna 2023, Stockholm, Sweden, 9-11 oktober, 2023, 103-103, 2023

1. T. Johansson, "A CMOS SoC for DECT/WDCT cordless phones with 27 dBm integrated power amplifier", SSoCC'07, Fiskebäckskil, Sweden, May 14-15, 2007.
2. J. Fritzin, T. Johansson, A. Alvandpour, "Power Amplifier for WLAN in 65nm CMOS", SSoCC '08, Södertuna, Sweden, May 5-6, 2008. Best Student Paper award.
3. T. Johansson, O. Bengtsson, S. Lotfi, L. Vestling, H. Norström, J. Olsson, C. Nyström, "A linear 32.8 dBm 2.4 GHz LDMOS power amplifier in 65 nm CMOS", SSoCC'13, Ystad, Sweden, May 6-7, 2013.
4. M. F. U. Haque, T. Johansson, D. Liu, "Modified Multilevel PWM Switch Mode Power Amplifier", SSoCC'14, Vadstena, Sweden, May 12-13, 2014.
5. T. Johansson, M. Salter, M. Vignetti, "Multi-Watt PA design in 28 nm CMOS on SOI", SSoCC'14, Vadstena, Sweden, May 12-13, 2014.
6. M. F. U. Haque, T. Johansson, D. Liu, "Combined RF and multiphase PWM Transmitter", SSoCC'15, Gothenburg, Sweden, May 4-5, 2015.

1. T. Johansson, "Inside the RF Power transistor", Applied Microwaves & Wireless, p. 34, Sep/Oct 1997.
2. T. Johansson, "Inside the RF Power transistor", Electronic Product Design Europe, p. C8, Oct. 1997.
3. T. Johansson, "Wireless-Trench technology for portable wireless applications", Ericsson Review 01-2001.
4. T. Johansson, "Wireless Trench - ny teknik för trådlösa tillämpningar", Elektronik i Norden, No. 11, p. 66, June 2001.
5. T. Johansson, "Silicon power amplifier RFIC technology for portable wireless applications", Microwave Engineering, p. 19, July 2001.
6. T. Johansson, U. Hagström, P. Lundin, J. Engvall, D. Uggla, "A high-efficiency low-cost silicon bipolar GSM dual-band PA module", Microwave Journal, p. 60, Dec 2001.
7. J. Pejnefors, T. Johansson, "High-performance bipolar transistors with SiGe:C and poly-SiGe", Unaxis Chip Magazine No. 8, March 2003.
8. T. Johansson, J. Pejnefors, "Modular concept overcomes SiGe bipolar process problems", Compound Semiconductor, June 2003.
9. M. Anderson, T. Johansson, S. Signell, "Tionde konferensen om SoC", Elektronik i Norden, 5/2010.
10. S. Signell, T. Johansson, M. Anderson, "Swedish System-on-Chip Conference Celebrates Tenth Anniversary [Chapters]", IEEE Solid-State Circuits Magazine, No. 4, p. 53, 2010.
11. T. Johansson, "Behovet av mobil beräkningskapacitet ökar snabbare än teknikutvecklingen", Elektronik i Norden, 5/2011.
12. T. Johansson, "11th Swedish System-on-Chip Conference Sponsored by SSCS-Sweden in May", IEEE Solid-State Circuits Magazine, No. 4, p. 58, 2011.
13. T. Johansson, "Att mäta kvalitet i utbildning", Elektroniktidningen, No. 11, p. 8, 2013.
14. T. Johansson, "Porter och chips", Elektronik i Norden, 2015-05-19.

<http://www.elinor.se/index.php/Porter-och-chips.html>

15.T. Johansson, "Lär dem löda", Elektroniktidningen, No. 7-8, p. 8, 2015.

[http://www.etn.se/index.php?  
option=com\\_content&view=article&id=61258](http://www.etn.se/index.php?option=com_content&view=article&id=61258)

16.T. Johansson, "Porter and Chips. Swedish SSC/CAS Chapter Conference in Historic Beer Brewery", IEEE Solid-State Circuits Magazine, No. 4, p. 91, 2015.

17. T. Johansson, "Uppsalas studenter utbildas på öppna EDA-verktyg, Elektroniktidningen, No. 9, pp. 12-13, 2024.

## 5 OTHER MATERIAL

1. T. Johansson, "Inside the RF Power transistor", Application Note, Ericsson Components AB, 1997.
2. T. Johansson, J. Curtis, "Gold: A Strategic Choice!", Application Note, Ericsson Components AB, 1999.
3. T. Johansson, "The SiGe bipolar transistor: History, Present, Future", Chapter 1 in "Silicon-Based Semiconductor Components for Radio-Frequency Integrated Circuits", ed. Will Z. Cai, Transworld Research Publisher, 2006. ISBN:81-7895-196-7

## 6 Lic. Eng. Thesis

T. Johansson, "Process and Device Development of MOSFET Technologies for Telecommunication Applications", Linköping Studies in Science and Technology, Thesis No. 375. Presented at LiU June 2, 1993.  
ISBN 91-7871-115-0

## 7 Ph.D. Thesis

T. Johansson, "The transistor, with emphasis on its use for radio frequency telecommunication.", Linköping Studies in Science and Technology, Dissertation No. 508. Presented at LiU, February 13, 1998.  
ISBN 91-7219-110-4