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Onderzoeksoutput

A 0.1nW-1μW all-dynamic capacitance-to-digital converter with power/speed/capacitance scalability

Xin, H., Andraud, M., Baltus, P., Cantatore, E. & Harpe, P., 16 okt 2018, *ESSCIRC 2018 - IEEE 44th European Solid State Circuits Conference*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 118-121 4 blz. 8494321

A reconfigurable receiver with 38 dB frequency-independent blocker suppression and enhanced in-B and linearity and power efficiency

Ying, K., Mendes da Costa Junior, C. A., Wang, B., Milosevic, D., Gao, H. & Baltus, P., 4 sep 2018, *ESSCIRC 2018 - IEEE 44th European Solid State Circuits Conference (ESSCIRC)*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 74-77 4 blz.

65/30 GHz dual-frequency wirelessly powered monolithic 1.83 mm² wireless temperature sensor using a 3-stage inductor-peaked rectifier with on-chip antenna in 65-nm CMOS

Gao, H., Matters-Kammerer, M. K. & Baltus, P., 17 aug 2018, *Proceedings of the 2018 IEEE/MTT-S International Microwave Symposium, IMS 2018*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 1275-1277 3 blz. 8439152

Design of a low-power ultrasound transceiver for underwater Sensor networks

Berkol, G., Baltus, P. G. M., Harpe, P. J. A. & Cantatore, E., 8 aug 2018, *PRIME 2018 - 14th Conference on Ph.D. Research in Microelectronics and Electronics*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 129-132 4 blz. 8430305

A 29-37 GHz BiCMOS low-noise amplifier with 28.5 dB peak gain and 3.1-4.1 dB NF

Chen, Z., Gao, H., Leenaerts, D., Milosevic, D. & Baltus, P., 7 aug 2018, *Proceedings of the 2018 IEEE Radio Frequency Integrated Circuits Symposium, RFIC 2018*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 288-291 4 blz. 8429020

A 60 GHz 360° phase shifter with 2.7° phase resolution and 1.4° RMS phase error in a 40-nm CMOS technology

Wang, B., Gao, H., Matters-Kammerer, M. K. & Baltus, P. G. M., 7 aug 2018, *Proceedings of the 2018 IEEE Radio Frequency Integrated Circuits Symposium, RFIC 2018*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 144-147 4 blz. 8428980

A 60 GHz low noise variable gain amplifier with small noise figure and IIP3 variation in a 40-nm CMOS technology

Wang, B., Gao, H., van Dommele, R., Matters-Kammerer, M. K. & Baltus, P. G. M., 29 jun 2018, *2018 IEEE MTT-S International Wireless Symposium, IWS 2018 - Proceedings*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), 4 blz. 8400880

Characterization of damper-to-damper wireless channel in small cars

Costa, C. A. M., Dheans, M., Baltus, P. & Gao, H., 29 jun 2018, *2018 IEEE MTT-S International Wireless Symposium, IWS 2018 - Proceedings*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), 3 blz. 8401014

Immunity analysis of an LDO using identification of operating region transitions

Duipmans, L., Milosevic, D., van der Wel, A., Karadi, R. & Baltus, P., 22 jun 2018, *2018 IEEE International Symposium on Electromagnetic Compatibility and 2018 IEEE Asia-Pacific Symposium on Electromagnetic Compatibility, EMC/APEMC 2018*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 701-706 6 blz.

A 1.9 mW 250 MHz Bandwidth Continuous-Time $\Sigma\Delta$ Modulator for Ultra-Wideband Applications

Neofytou, M., Zhou, M., Bolatkale, M., Liu, Q., Zhang, C., Radulov, G., Baltus, P. & Breems, L., 26 apr 2018, *2018 IEEE International Symposium on Circuits and Systems, ISCAS 2018 - Proceedings*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), 5 blz. 8351046

A 2 GHz 0.98 mW 4-bit SAR-based quantizer with ELD compensation in an UWB CT $\Sigma\Delta$ modulator

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A wideband envelope detector with low ripple and high detection speed

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An UWB, low-noise, low-power quadrature VCO using delay-locked loop in 40-nm CMOS for image-rejection receivers

Kaul, P., Gao, H., He, X. & Baltus, P. G. M., 26 apr 2018, *2018 IEEE International Symposium on Circuits and Systems, ISCAS 2018 - Proceedings*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), Vol. 2018-May, 5 blz. 8350984

Analysis of the effect of PFD sampling on charge-pump PLL stability

Dhar, D., van Zeijl, P. T. M., Milosevic, D., Gao, H. & Baltus, P. G. M., 26 apr 2018, *2018 IEEE International Symposium on Circuits and Systems, ISCAS 2018 - Proceedings*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), Vol. 2018-May, blz. 1-5 5 blz. 8351180

A 174 pW–488.3 nW 1 S/s–100 kS/s all-dynamic resistive temperature sensor with speed/resolution/resistance adaptability

Xin, H., Andraud, M. N., Baltus, P. G. M., Cantatore, E. & Harpe, P. J. A., 17 apr 2018, In : *IEEE Solid-State Circuits Letters*. 1, 3, blz. 70-73 4 blz.

Damper-to-damper path loss characterization for intra-vehicular wireless sensor networks

Costa, C. A. M., Gao, H., Le Polain, T., van Dommele, R., Smolders, B., Dheans, M. & Baltus, P., 5 jan 2018, *2017 European Radar Conference (EURAD) : "A Prime Year for a Prime Event", EuMW 2017 - Conference Proceedings; 14th European Microwave Conference, EURAD 2017*. Piscataway: Institute of Electrical and Electronics Engineers (IEEE), blz. 493-496 4 blz.

A 60 GHz low power self-mixing receiver in 65-nm CMOS for a radio-triggered battery-less monolithic wireless sensor

Gao, H., Matters-Kammerer, M. & Baltus, P. G. M., jan 2018, In : *IEEE Journal on Emerging and Selected Topics in Circuits and Systems*. 8, 2, blz. 240-250 11 blz., 08278164

Batteryless mm-wave wireless sensors

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Building 5G millimeter-wave wireless infrastructure: wide-scan focal plane arrays with broadband optical beamforming

Smolders, A. B., Dubok, A., Tessema, N. M., Chen, Z., Al-Rawi, A. N. H., Johannsen, U., Bressner, T. A. H., Milosevic, D., Gao, H., Tangdiongga, E., Gerini, G., Baltus, P. G. M., Geurts, M. & Koonen, A. M. J., 2018, (Geaccepteerd/In druk) In : *IEEE Antennas and Propagation Magazine*.

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A 900 MHz RF energy harvesting system in 40 nm CMOS technology with efficiency peaking at 47% and higher than 30% over a 22dB wide input power range

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Identifying EMC-critical devices by monitoring and classifying operating region transitions

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A nonlinear transfer function based receiver for wideband interference suppression

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An active Ka-band shared aperture antenna with 50 dB isolation for satellite communication

Zamanifekri, A., Lu, C., Visser, H. J., Sanders, P., Matters - Kammerer, M., Geurts, M., Baltus, P. G. M. & Smolders, A. B., 2017, In : *IEEE Antennas and Wireless Propagation Letters*. 16, blz. 2042-2045 4 blz.

Bi-directional 35-Gbit/s 2D beam steered optical wireless downlink and 5-Gbit/s localized 60-GHz communication uplink for hybrid indoor wireless systems

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A 60-GHz energy harvesting module with on-chip antenna and switch for co-integration with ULP radios in 65-nm CMOS with fully wireless mm-wave power transfer measurement

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