Analog Circuit Design

Smart Data Converters, Filters on Chip, Multimode Transmitters
Contents

Part I  Smart Data Converters

1  LMS-Based Digital Assisting for Data Converters ........................................ 3
   Bang-Sup Song

2  Pipelined ADC Digital Calibration Techniques and Tradeoffs .................................. 23
   Imran Ahmed

3  High-Resolution and Wide-Bandwidth CMOS Pipeline AD Converters ................................ 43
   Hans Van de Vel

4  A Signal Processing View on Time-Interleaved ADCS ........................................ 61
   Christian Vogel

5  DAC Correction and Flexibility, Classification, New Methods and Designs ..................... 79
   Georgi Radulov, Patrick Quinn, Hans Hegt, and Arthur van Roermund

6  Smart CMOS Current-Steering D/A-Converters for Embedded Applications .................... 107
   Martin Clara, Daniel Gruber, and Wolfgang Klatzer

Part II  Filters On-Chip

7  Synthesis of Low-Sensitivity Analog Filters .................................................. 129
   Lars Wanhammar

8  High-Performance Continuous-Time Filters with On-Chip Tuning ................................. 147
   Jose Silva-Martinez and Aydin İ. Karşılıyan
9 Source-Follower-Based Continuous Time Analog Filters .................. 167
Stefano D'Amico, Marcello De Matteis, and Andrea Baschirotto

10 Reconfigurable Active-RC Filters with High Linearity and Low Noise for Home Networking Applications .................. 189
Jan Vandenbussche, Jan Crols, and Yuichi Segawa

11 On-Chip Instantaneously Companding Filters for Wireless Communications .................................................. 203
Vaibhav Maheshwari and Wouter A. Serdijn

12 BAW-IC CO-Integration Tunable Filters at GHz Frequencies ................................................................. 219
Andreia Cathelin, Stéphane Razafimandimby, and Andreas Kaiser

Part III Multi-mode Transmitters

13 Multimode Transmitters: Easier with Strong Nonlinearity .............. 247
Earl McCune

14 RBS High Efficiency Power Amplifier Research – Challenges and Possibilities ................................................. 259
Bo Berglund, Ulf Gustavsson, Johan Thorebäck, and Thomas Lejon

15 Multi-Mode Transmitters in CMOS ................................................. 275
Manel Collados, Xin He, Jan van Sinderen, and Raf Roovers

16 Challenges for Mobile Terminal CMOS Power Amplifiers .............. 295
Patrick Reynaert

17 Multimode Transmitters with ΔΣ-Based All-Digital RF Signal Generation .......................................................... 305
A. Frappe, A. Kaiser, A. Flament, and B. Stefanelli

18 Switched Mode Transmitter Architectures .................................. 325
Henrik Sjöland, Carl Bryant, Vandana Bassoo, and Mike Faulkner