Oversampling Delta-Sigma Data Converters. Theory, Design, and Simulation

Description: This now famous anthology brings together various aspects of oversampling methods and compares and evaluates design approaches. It describes the theoretical analysis of converter performances, the actual design of converters and their simulation, circuit implementations, and applications.

Contents:

Preface.

Introduction.

Oversampling Methods for A/D and D/A Conversion (J. Candy & G. Temes).

BASIC THEORY AND ANALYSIS.

An Analysis of Nonlinear Behavior in Delta-Sigma Modulators (S. Ardalan & J. Paulos).

A Use of Limit Cycle Oscillations to Obtain Robust Analog-to-Digital Converters (J. Candy).

The Structure of Quantization Noise from Sigma-Delta Modulation (J. Candy & O. Benjamin).

Multistage Sigma-Delta Modulation (W. Chou, et al.).

Oversampled Sigma-Delta Modulation (R. Gray).

Quantization Noise Spectra (R. Gray).

Double-Loop Sigma-Delta Modulation with dc Input (N. He, et al.).

A Unity Bit Coding Method by Negative Feedback (H. Inose & Y. Yasuda).

Design of Stable High Order 1-Bit Sigma-Delta Modulators (T. Ritoniemi, et al.).

Reduction of Quantizing Noise by Use of Feedback (H. Spang III & P. Schultheiss).


DESIGN, SIMULATION TECHNIQUES, AND ARCHITECTURES FOR OVERSAMPLING CONVERTERS.


Table-Based Simulation of Delta-Sigma Modulators (R. Bishop, et al.).


A Use if Double Integration in Sigma Delta Modulation (J. Candy).


Digitally Corrected Multi-Bit S? Data Converters (T. Cataltepe, et al.).


One Bit Higher Order Sigma-Delta A/D Converters (P. Ferguson, et al.).

Optimization of a Sigma-Delta Modulator by the Use of a Slow ADC (A. Gossau & A. Gottwald).
Circuit and Technology Considerations for MOS Delta-Sigma A/D Converters (M. Hauser & R. Brodersen).

Technology Scaling and Performance Limitations in Delta-Sigma Analog-Digital Converters (M. Hauser).

Delta-Sigma A/Ds with Reduced Sensitivity to Op Amp Noise and Gain (P. Hurst & R. Levinson).

Multibit Oversampled S-? A/D Converter with Digital Error Correction (L. Larson, et al.).

An Improved Sigma-Delta Modulator Architecture (T. Leslie & B. Singh).

A 13 Bit ISDN-Band Oversampled ADC Using Two-Stage Third Order Noise Shaping (L. Longo & M. Copeland).


Improved Signal-to-Noise Ratio Using Tri-Level Delta-Sigma Modulation (J. Paulos, et al.).


Improved Double Integration Delta-Sigma Modulations for A to D and D to A Conversion (Y. Shoji & T. Suzuki).

Oversampling A-to-D and D-to-A Converters with Multistage Noise Shaping Modulators (K. Uchimura, et al.).

Architectures for High-Order Multibit S? Modulators (R. Walden, et al.).

Constraints Analysis for Oversampling A-to-D Converter Structures on VLSI Implementation (A. Yukawa).

IMPLEMENTATIONS AND APPLICATIONS OF OVERSAMPLING A/D CONVERTERS.


A Noise-Shaping Coder Topology for 15+ Bit Converters (L. Carley).

A Dual-Channel Voice-Band PCM Codec Using S? Modulation Technique (V. Friedman, et al.).

MOS ADC-Filter Combination That Does Not Require Precision Analog Components (M. Hauser, et al.).

A Multistage Delta-Sigma Modulator without Double Integration Loop (T. Hayashi, et al.).


A 12-Bit Sigma-Delta Analog-to-Digital Converter with 15-MHz Clock Rate (R. Koch, et al.).

Area-Efficient Multichannel Oversampled PCM Voice-Band Coder (B. Leung, et al.).

An 18b Oversampling A/D Converter for Digital Audio (K. Matsumoto, et al.).


Fully Differential CMOS Sigma-Delta Modulator for High Performance Analog-to-Digital Conversion with 5 V Operating Voltage (T. Ritonieri, et al.).

A High-Resolution CMOS Sigma-Delta A/D Converter with 320 kHz Output Rate (M. Rebeschini, et al.).

A CMOS Slope Adaptive Delta Modulator (J. Scott, et al.).
DIGITAL FILTERS FOR OVERSAMPLING A/D CONVERTERS.

Using Triangularly Weighted Interpolation to Get 13-Bit PCM from a Sigma-Delta Modulator (J. Candy, et al.).

A Voiceband Codec with Digital Filtering (J. Candy, et al.).

Decimation for Sigma Delta Modulation (J. Candy).

Multirate Filter Designs Using Comb Filters (S. Chu & C. Burrus).


A Design Methodology for Decimation Filters in Sigma Delta A/D Converters (E. Dijkstra, et al.).

On the Use of Modulo Arithmetic Comb Filters in Sigma Delta Modulators (E. Dijkstra, et al.).

Nine Digital Filters for Decimation and Interpolation (D. Goodman & M. Carey).


THEORY AND IMPLEMENTATIONS OF OVERSAMPLING D/A CONVERTERS.

Double Interpolation for Digital-to-Analog Conversion (J. Candy & A.-N. Huynh).

A 16-Bit 4th Order Noise-Shaping D/A Converter (L. Carley & J. Kenney).

A CMOS Stereo 16-Bit D/A Converter for Digital Audio (P. Naus, et al.).

Ordering:

Order Online - http://www.researchandmarkets.com/reports/2178235/

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

Product Name: Oversampling Delta-Sigma Data Converters. Theory, Design, and Simulation
Web Address: http://www.researchandmarkets.com/reports/2178235/
Office Code: SCDV2G15

Product Format
Please select the product format and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Hard Copy (Paper back)</th>
<th>USD 225 + USD 28 Shipping/Handling</th>
</tr>
</thead>
</table>

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in BLOCK CAPITALS

Title: \[
\begin{array}{ccccccc}
\text{Mr} & \text{Mrs} & \text{Dr} & \text{Miss} & \text{Ms} & \text{Prof} \\
\end{array}
\]
First Name: ___________________________ Last Name: ___________________________
Email Address: * _______________________
Job Title: ______________________________
Organisation: __________________________
Address: ________________________________
City: __________________________________
Postal / Zip Code: _______________________
Country: ________________________________
Phone Number: __________________________
Fax Number: ____________________________

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: ____________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World