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(71) Applicant (for all designated States except US): **LINEAR TECHNOLOGY CORPORATION** [US/US]; 1630 McCarthy Boulevard, Milpitas, California 95035-7417 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **OPRESCU, Florin A.** [US/US]; 17287 Camino de Montecillo, Rancho Santa Fe, California 92067 (US).

(74) Agents: **MORRIS, Robert W.** et al.; FISH & NEAVE IP GROUP, ROPES & GRAY LLP, 1251 Avenue of the Americas, New York, New York 10020 (US).

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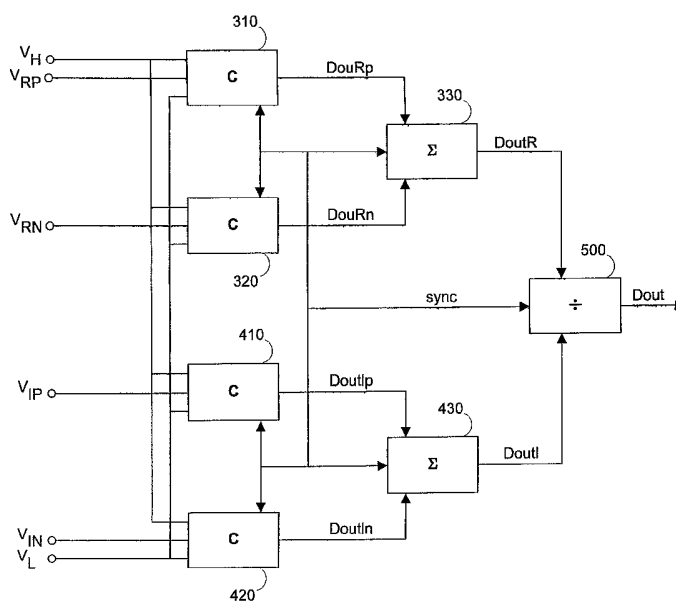
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(54) Title: ANALOG-TO-DIGITAL CONVERTER WITH REDUCED AVERAGE INPUT CURRENT AND REDUCED AVERAGE REFERENCE CURRENT



(57) Abstract: An analog to digital converter system (410, 420) which converts an analog input signal ( $V_{in}$ ,  $V_{ip}$ ) supplied by a signal source having first and second nodes, a first sampling circuit coupled to the first node for sampling the input signal with respect to a reference signal ( $V_L$ ) and configured so as to provide a substantially zero total charge taken from the first node during a first sampling process, and a second sampling circuit coupled to the second node for sampling the input signal with respect to the reference signal ( $V_L$ ) and configured so as to provide a substantially zero total charge taken from the second node during a second sampling process.

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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/37662

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : HO3M 1/12

US CL : 341/155

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 341/155, 122, 141, 158

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST, NPL

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,071,920 A (French) May 21, 1991 (5.21.1991) see col. 3 lines 5-63,	1-32
A	US 5,107,266 A (Kim) 21 April 1992 (21.04.1992), col. 3, lines 50 to col 4 line 11.	1-32
A	US 2004/0001018 Hales (01.01.2004), Fig. 4.	1-32

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

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Authorized officer

Peguy JeanPierre  
Telephone No. (571) 272-1803