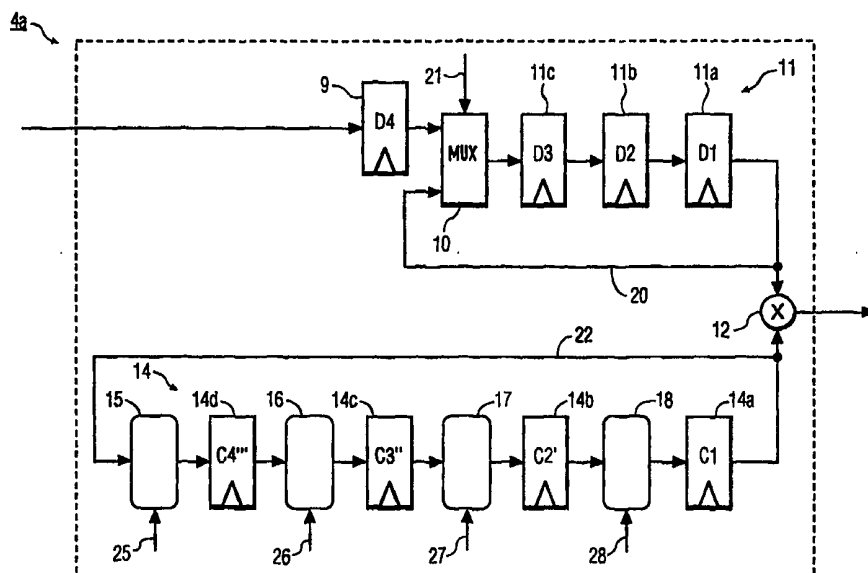




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(54) Title: SHARING RESOURCES IN A DIGITAL FILTER



(57) Abstract

A digital filter (1) has a filter cell (4a) for generating processed data. The digital filter cell includes plurality of coefficient registers (14) which are arranged to circulate a plurality of coefficient values that correspond to a plurality of coefficients such that each of the plurality of coefficients is output once during a predetermined period. One or more data registers (11) are arranged to circulate a data value for a time which is at least as long as the predetermined period such that the data value is output each time that a different one of the plurality of coefficients is output. A circuit (12) receives each output data value and each output coefficient and generates processed data by processing each output data value with each output coefficient.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC6: H03H 21/00, H03H 17/00

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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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EPODOC, WPI, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0292189 A2 (ADVANCED MICRO DEVICES, INC.), 23 November 1988 (23.11.88), see the whole document --	1-15
Y	US 5479363 A (ALAN N. WILLSON, JR. ET AL), 26 December 1995 (26.12.95), column 4, line 5 - line 30; column 5, line 14 - line 31; column 7, line 59 - line 67, figure 7, claim 2, column 8, line 1 - line 4; column 10, line 47 - line 63 --	1-4, 9-11, 15
Y	GB 2161345 A (BRITISH TELECOMMUNICATIONS PLC), 8 January 1986 (08.01.86), page 1, line 60 - line 65; page 1, line 103 - line 114; page 6, line 15 - line 30, claim 1 --	1-4, 9-11, 15

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0292189 A2	23/11/88	AT 91831 T DE 3882435 A,T JP 1071210 A	15/08/93 26/08/93 16/03/89
US 5479363 A	26/12/95	NONE	
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